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ABSTRACT

In 1992, Missouri's Coordinating Board for Higher Education (CBHE) adopted 24 higher education goals that would fulfill its vision statement and address needs identified in its task force report. Baseline data for these goals were gathered in 1993, and annual data have been collected through state and federal surveys completed by the state's public and independent colleges and universities. This report provides an update on the progress the state is making toward these goals, which include initiatives in the following areas: high school core curriculum, advanced placement opportunities; underrepresented groups and minority student participation and success; prospective school teachers; remedial education; enrollment at public four-year colleges and universities; admission categories; success rates of entering freshmen; geographic access to postsecondary technical education; student transfers; minority employment in Missouri higher education; degree program assessment; assessment in the major field of study; national recognition of graduate and professional programs; changes in funded positions by employment category; faculty workload; student financial aid; performance-based funding; instructional and research equipment facilities; accountability reporting; operating and capital funding; and governance. Appendices include a status summary on a state plan for a postsecondary instructional television network; and a review of academic programs by campus. (Contains 47 charts). (MAB)

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Progress Toward the Statewide Public Policy Initiatives and Goals for Missouri Higher Education

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HE 031 391

April 16, 1998 • Jefferson City, MO

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Blueprint
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1998 Report on
Progress Toward the Statewide Public Policy
Initiatives and Goals
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Blueprint for the Future of Missouri Higher Education

1998 Report on Progress Toward the Statewide Public Policy Initiatives and Goals for Missouri Higher Education

April 16, 1998

Blueprint for the Future of Missouri Higher Education

During its October 12, 1995 meeting, the Coordinating Board for Higher Education (CBHE) adopted four strategic initiatives that, together, comprise the state system of higher education's blueprint for the future. Those initiatives include institutional mission review, enhanced postsecondary technical education, coordinated telecommunications-based delivery of instruction, and performance-based funding. In addition, universal access to the 13th and 14th years of education and a commitment to a seamless system of K-16 education were added as strategic initiatives by the CBHE in 1997. Associated with the blueprint is this annual report of the progress the state's system of higher education is making toward the attainment of the statewide goals and public policy initiatives adopted by the Coordinating Board in 1992.

As appropriate, several measures used in monitoring the institutions' performance in meeting these 1992 goals are included as part of the board's Funding for Results (FFR), or performance-based, budget recommendations. FFR elements included in the budget recommendations are selected based on discussions among the leadership of the state's colleges and universities and the Coordinating Board. All FFR elements are drawn from the board's broader set of performance measures included in the CBHE's statewide goals and public policy initiatives.

Context for the Coordinating Board's Statewide Goals and Public Policy Initiatives

An appropriate context for the board's progress report is the vision and desirable characteristics for the system of higher education adopted as part of the public policy initiatives and goals in 1992. That vision, which continues to provide a framework for the board's public policy decisions, is as follows.

> ***In order to secure their collective futures, the citizens of Missouri need a postsecondary system of public and independent colleges and universities private vocational and career schools, that is distinguished by the following characteristics:***
>
> - **higher education and vocational training services of the highest quality that are truly competitive on a national and international level;**
>
> - **a coordinated, balanced, and cost-effective delivery system;**

- **a range of vocational, academic, and professional programs affordable and accessible to all citizens with the preparation and ability to benefit from the programs;**

- **differentiated institutional missions and implementation plans both among and within sectors designed to meet state needs and goals with a minimum of program duplication; and**

- **a systematic demonstration of institutional performance and accountability through appropriate assessment efforts.**

This vision statement was developed after a review of statewide needs reported by numerous study groups, including the Business Alliance for Quality Education, Battelle Corporation, Civic Progress in St. Louis, Confluence St. Louis and Kansas City Consensus, Governor's Advisory Council on Literacy, Jobs for Missouri's Future, Inc., Missouri Business and Education Partnership Commission, Missourians for Higher Education, Missouri State Council on Vocational Education, as well as the Coordinating Board for Higher Education.

The statewide needs for higher education that were identified by the Task Force on Critical Choices for Missouri Higher Education, and included by the CBHE in its 1992 public policy initiatives and goals, include the following:

For Missouri higher education to assist in securing Missouri's future, its system of public, independent, and private vocational postsecondary education needs to:

- **raise aspirations and expectations for high academic achievement and for the quality of instruction and learning;**

- **remove barriers for economically and educationally disadvantaged students, particularly minorities and citizens in rural areas;**

- **assist and encourage improvement in the quality and effectiveness of elementary and secondary education and enhance continually the quality of new teachers;**

- **improve the quality and effectiveness of undergraduate education, particularly in general education;**

- **strengthen graduate education and research;**

- **strengthen the delivery of postsecondary vocational programs;**

- **encourage the delivery system in raising the level of adult literacy, recognizing that the system needs to be better coordinated and adequately funded;**

- **implement administrative and structural reforms to make higher education more efficient and accountable;**
- **demonstrate accountability by providing evidence that institutions are successful in meeting statewide needs;**
- **develop funding policies which are fair, rational, and predictable, including rewards for demonstrated quality and performance; and**
- **provide educational opportunities for learning disabled students in higher education.**

Background on the Progress Report

In October 1992, the Coordinating Board for Higher Education adopted 24 goals for Missouri's system of higher education that would contribute to the fulfillment of the vision and address the needs identified in the report of the Task Force on Critical Choices for Missouri Higher Education. Where appropriate, performance measures were established to monitor the progress toward these agreed upon goals. In addition, a group of institutional representatives met on several occasions in 1993 to add clarifying comments that provided operational definitions to assure that the meaning of each goal would be interpreted consistently.

Baseline data for most goals were gathered in 1993. Data have been collected annually since then through the CBHE Survey of Missouri Higher Education Performance Indicators, the Enhanced Missouri Student Achievement Study, and the state and federal surveys completed by the state's public and independent colleges and universities.

1996 Progress Report

On December 7, 1995, Commissioner of Higher Education Kala Stroup asked the CBHE Presidential Advisory Committee to review the 1992 goals and advise the Coordinating Board of any enhancements or modifications deemed necessary to ensure that Missouri's system of higher education continues to move toward the fulfillment of the vision for higher education. Dr. Julio Leon, president of Missouri Southern State College, was invited by Commissioner Stroup to lead this discussion during the Advisory Committee's February and April 1996 meetings. Included in the minutes of those meetings are summaries of the Advisory Committee's discussion and a report of the additional analyses the committee requested during its review of the 1996 progress report.

1998 Progress Report

This report provides an update on the progress the state's system of higher education is making toward the attainment of the statewide goals adopted by the Coordinating Board in 1992. Goals which are related to Funding for Results have **FFR** in parenthesis after the goal number.

1998 Report on Progress Toward the Statewide Public Policy Initiatives and Goals for Missouri Higher Education

GOAL 1: **Beginning with the fall 1996 semester, all first-time, full-time degree-seeking freshmen will have completed the Coordinating Board's recommended 16-unit high school core curriculum.**

The actual goal adopted by the Coordinating Board in 1992 is: **All first-time, full-time degree-seeking freshmen (and transfer students who have completed 23 or fewer credit hours at another institution) who enroll at Missouri's public four-year colleges and universities will have completed the CBHE's recommended high school core curriculum.** Since there is difficulty in identifying with precision transfer students with 23 or fewer credit hours, the progress reports have limited reporting on this goal to first-time, full-time degree-seeking freshmen.

Over time, the CBHE recommended high school core curriculum adopted in 1992 has been revised and now includes 13 units in both academic and selected applied high school courses in English, mathematics, science, social science, and fine arts. An additional 3 units of electives selected from the list of recommended disciplines (with 2 units of the same foreign language being highly recommended) are also included. On November 17, 1994, the State Board of Education amended the course requirements for its College Preparatory Certificate to correspond to the CBHE recommended high school core curriculum.

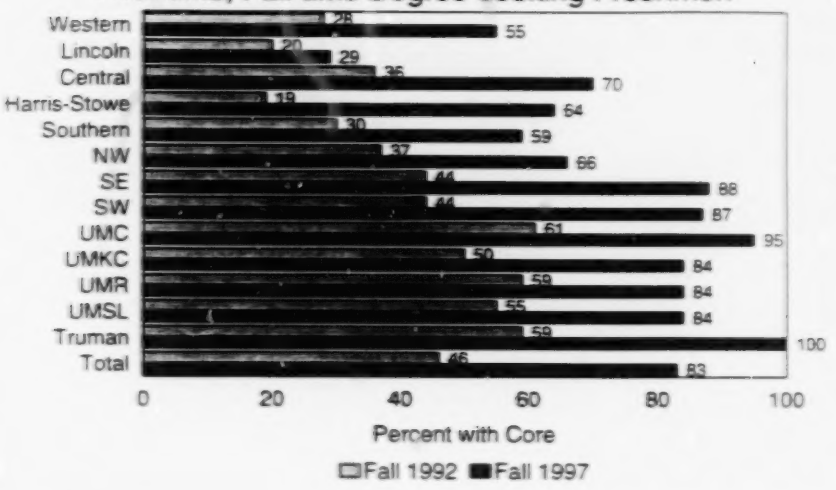
Analysis of the Core Between Fall 1992 and Fall 1997

Between the fall of 1992 and the fall of 1997, the proportion of entering first-time, full-time degree-seeking freshmen who took the CBHE recommended 16-unit high school core curriculum increased from 46 percent to 83 percent (Chart 1). Truman State University is the only public four-year institution that met this goal in the fall of 1997.

The impact of the CBHE recommended high school core curriculum on a student's ACT score continues to be demonstrated. For example, the average ACT composite score for ACT-tested, fall 1997 first-time, full-time degree-seeking freshmen enrolled in the state's public four-year colleges and universities, who took the CBHE recommended 16-unit high school core curriculum, was 24.7. Those fall 1997 ACT-tested first-time, full-time degree-seeking freshmen who had less than the recommended 16-unit high school core averaged 21.5 on the ACT, a difference of 3.2 points.

Chart 1

CBHE High School Core Curriculum Reported by Missouri's Public Four-year Colleges and Universities, Fall 1992 and Fall 1997, First-time, Full-time Degree-seeking Freshmen



Note: Based on analysis of reported courses.

GOAL 2: Every Missouri high school will provide opportunities for Advanced Placement (AP) offerings.

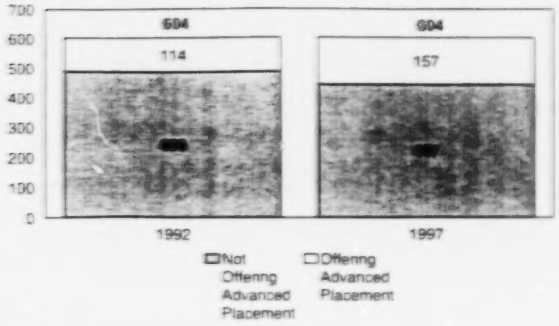
Since 1992, the number of Missouri public and private high schools has remained constant at around 600 (523 public, 81 private). The number offering Advanced Placement (AP) courses, however, has increased nearly 38 percent, from 114 in 1992 to 157 in 1997 (Chart 2). The number of Missouri high school students taking AP courses increased by 53 percent, from 2,864 to 4,392. The number of AP examinations taken by Missouri high school students increased nearly 51 percent, from 4,585 to 6,913, between 1992 and 1997 (Chart 3).

As noted in Chart 4, the number of public and private high schools offering Advanced Placement courses has remained fairly constant. The number of AP candidates and the number of AP examinations has slightly increased in both public and private high schools (Chart 5).

It should be noted that while the College Board, the source of the AP data, provides the above information for Missouri public and private high schools, the data are not currently broken out between rural and urban high schools.

Chart 2

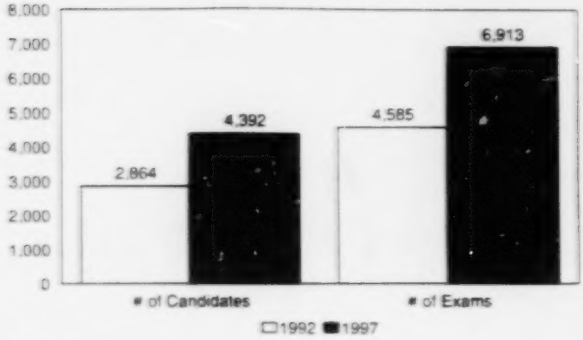
Total Missouri Public and Private High Schools and the Number Offering Advanced Placement, 1992 and 1997



Source: The College Board
Note: Data are not available to make other or more comparisons.

Chart 3

Number of High School Candidates for Advanced Placement Exams and Number of Exams Taken



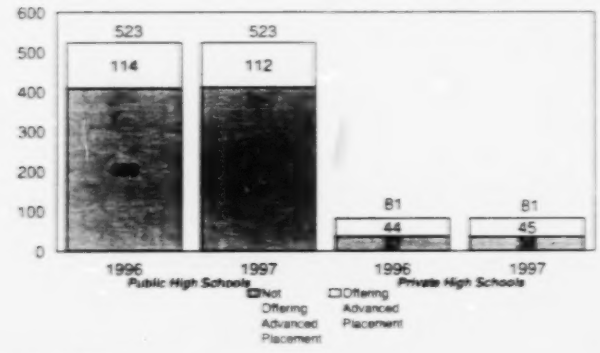
Source: The College Board
Note: Data are not available to make other or more comparisons.

In 1997, 73.5 percent of the AP examinations written by Missouri students were scored at a grade of three or above on a five-point scale, the highest percentage for all 50 states.

In the FY 1997 budget recommendation, both the CBHE and Governor Carnahan supported funding for the training of Advanced Placement teachers. An additional $119,810 was appropriated for the program at Truman State University and $179,000 for the program at Southeast Missouri State University.

Chart 4

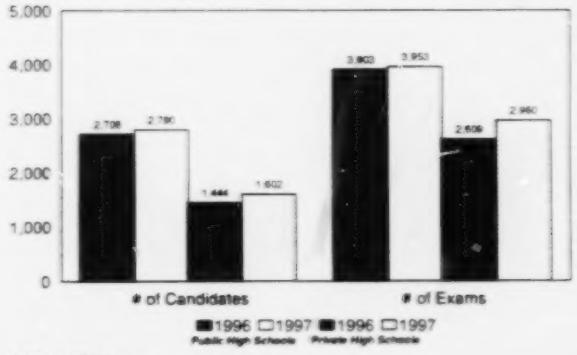
Total Missouri Public and Private High Schools and the Number Offering Advanced Placement, 1996 and 1997



Source: The College Board
Note: Data are not available to make other or more comparisons.

Chart 5

Number of High School Candidates for Advanced Placement Exams and Number of Exams Taken, 1996 and 1997



Source: The College Board
Note: Data are not available to make other or more comparisons.

GOAL 3: (FFR)	**Minorities will participate and succeed in Missouri's system of higher education in proportions at least equal to their representation in the state of Missouri.**

One context for the board's strategic initiative related to increasing the participation rate of minorities and other underrepresented groups in the state's system of higher education is the need to increase the overall college going rate of Missouri high school students. Mr. J. Leland Johnson and Dr. Stephen G. Katsinas reported in *Outside Looking In: Comparing Missouri to the Nation*, prepared for the 1997 Missouri Governor's Conference on Higher Education, that "Missouri's rate of graduation from its public high schools in 1994 was above the national average, 73 compared to 70 percent (Table 1). However, only 51 percent of Missouri's public high school graduates continue on in college, compared to 57 percent for the nation. Missouri falls further behind the national average when comparing the percentage of its high school graduates who stay in college at age 19, 37 compared to 40 percent nationally."

Table 1

Participation of Recent High School Graduates in Postsecondary Education: Missouri and U.S. Average, 1994

	MO	US
MO Public HS Graduation Rate	73.2%	70.0%
Percent Continuing in College	50.8%	57.2%
Percent in College at Age 19	37.2%	40.0%

Participation and Success of Minority Students Enrolled in Missouri Higher Education

"Representation" was clarified to mean the proportion of the state's population age 18 or older. "Minority" was clarified to mean African-American, Asian, Hispanic, and American Indian/Alaskan native. The following analyses, therefore, do not include non-resident aliens nor do they include unknowns.

The state demographer, Ryan Burson, has reported that as of July 1996, the U.S. Census Bureau estimates that 13 percent of Missouri's population age 18 and over was from one of the designated minority groups: African-American-10 percent, Asian-1 percent, Hispanic-1 percent, and American Indian/Alaskan native-1 percent.

The proportion of the state's full-time undergraduate enrollment in public and independent colleges and universities comprised of minorities has remained constant from FY 1992 to FY 1997: nearly 8 percent African-American and slightly more than 12 percent for all minorities (Chart 6). While the proportion of minorities to the total full-time undergraduate enrollment has remained constant, total full-time undergraduate enrollment at the state's public and independent colleges and universities has declined by nearly 6 percent between FY 1992 and FY 1997, from 133,617 to 125,604 (Chart 7).

Total enrollment in private career schools certified to operate by the CBHE has increased from 20,255 in 1992 to 21,582 in 1996. During that time, African-American enrollment in these schools increased from 3,099 to 4,048, or from 15 percent to 19 percent of the total enrollment. All minorities, as a proportion of the total proprietary school enrollment, increased from 19 percent to 23 percent between 1992 and 1996.

Chart 6

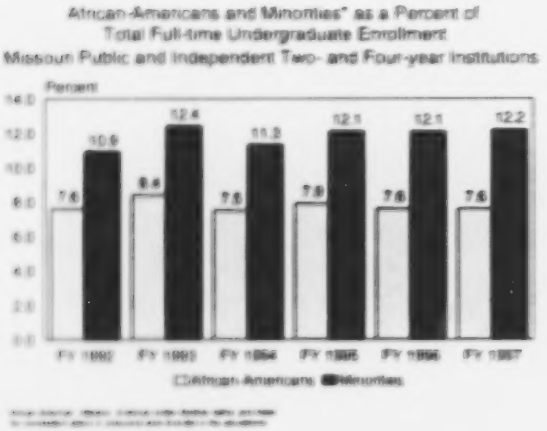
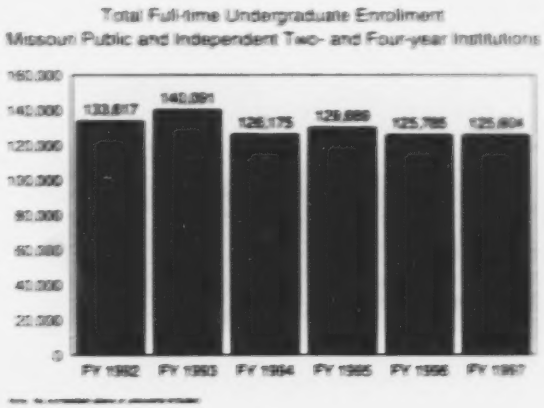


Chart 7



Success Based on Degree Completion

Between 1991-92 and 1996-97, the number of degrees conferred to African-Americans and all minorities increased from 2,763 and 4,598 to 3,640 and 6,066, respectively (Chart 8). In addition, the proportion of all degrees conferred to African-Americans increased from 6.3 percent to 7.9 percent and the proportion of all degrees conferred to minorities increased from 10.4 percent to 13.1 percent (Chart 9).

Between FY 1993 and FY 1997, the proportion of degrees conferred by the public institutions has increased at every degree level except the associate.

Certificate - from 9.3 percent to 11.4 percent (Chart 10)
Associate - from 10.0 percent to 8.7 percent (Chart 11)

Baccalaureate - from 5.6 percent to 7.5 percent (Chart 12)
Master's - from 5.5 percent to 6.5 percent (Chart 13)
Doctorate/First Professional - from 6.6 percent to 8.1 percent (Chart 14)

Chart 8

Number of Degrees Conferred to African-Americans and Minorities, ...souri Public and Independent Two- and Four-year Institutions

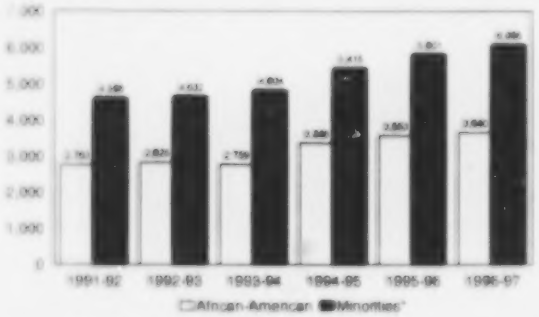


Chart 9

Degrees to African-Americans and Minorities as a Percent of Total Degrees Conferred, Missouri Public and Independent Two- and Four-year Institutions

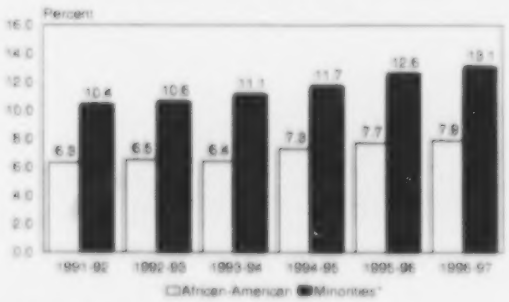


Chart 10

Percent of More Than One-year But Less Than Two-year and More Than Two-year But Less Than Four-year Certificates Certificates Conferred to Minority* Students

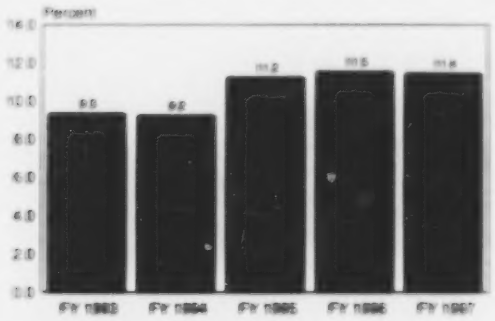
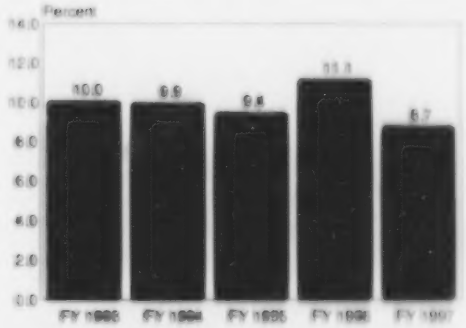


Chart 11

Percent of Associate Degrees Conferred to Minority* Students



Heartland's Alliance for Minority Participation

Colleges and universities have many initiatives to increase the enrollment of minority students. One joint effort is the Heartland's Alliance for Minority Participation (HAMP). This is a cooperative effort by the National Science Foundation, several Missouri public colleges and universities, and numerous Missouri businesses to (1) increase the number of underrepresented undergraduates pursuing degrees in science, engineering, and mathematics by 15 percent and (2) increase the number of underrepresented students pursuing graduate degrees in science, engineering, and mathematics by 50 percent.

Chart 12

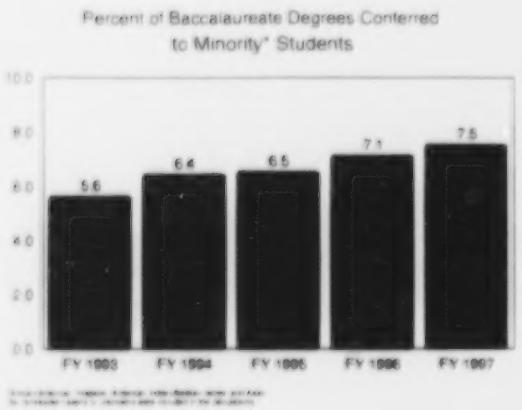


Chart 13

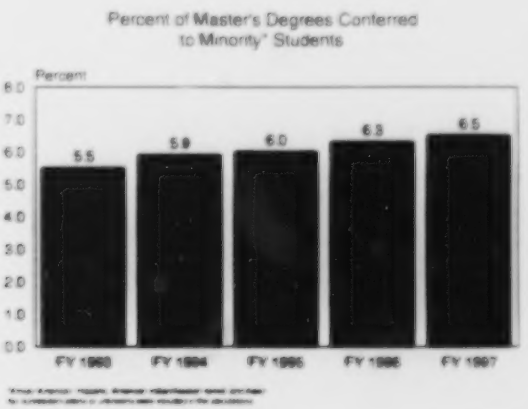
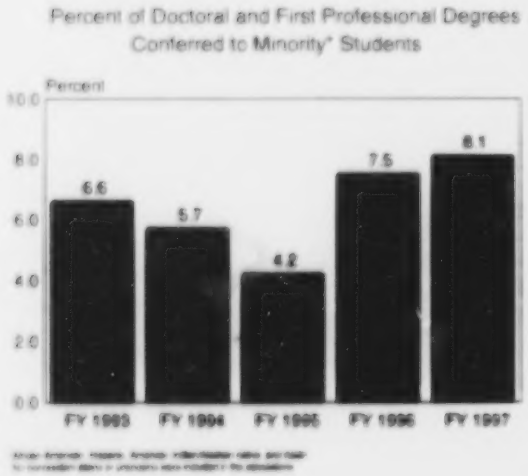


Chart 14



Participants in the HAMP programs include St. Louis Community College, Lincoln University, Central Missouri State University, Southwest Missouri State University, the four campuses of the University of Missouri System (Columbia, Kansas City, Rolla, and St. Louis.

Each participating institution is designing and implementing bridge programs, from pre-college experiences through undergraduate and graduate education, to increase the participation of underrepresented groups in Missouri higher education. The bridge programs include early identification programs, undergraduate transition and retention programs, and graduate school transition programs.

The success of the HAMP project in Missouri is significant. Since the project began:

- Enrollment of underrepresented groups in science, mathematics, engineering, and technology (SMET) programs at HAMP institutions has increased 43 percent over the fall 1994 benchmark year (from 1,179 in 1994 to 1,896 in 1996).

- Graduate enrollment of underrepresented students in SMET majors increased by 20 percent (from 253 to 303), while graduate enrollment for all SMET majors increased by 29 percent (from 3,426 to 4,411) between the baseline year of fall 1994 and fall 1996.

HAMP reports a 58 percent increase in the number of SMET degrees conferred to underrepresented undergraduates between 1994 and 1997, increasing from 137 to 217. (Source: *Building Bridges*, 1995-1997, The Heartland's Alliance for Minority Participation)

Under Representation of Low Social Economic Status and Minority Students as an FFR Element

The Funding for Results (FFR) minority element has been redefined to include students with a low social economic status (SES) profile as defined by being placed in the top quartile of all Pell grant eligible students. In addition, minority students without a low SES are only counted as underrepresented if they are from a targeted group with a graduation distribution lower than the group's percentage in the Missouri population 18 years old or older. Two-year institutions are rewarded for the graduation of students from underrepresented groups at the associate degree and certificates of one year or more levels, while four-year institutions are rewarded for graduations at the baccalaureate degree level.

A review of the proportion of minorities 18 years old or older in the Missouri population and the graduation distributions for minority groups in FY 1996 resulted in the following conclusions. African-Americans, Asians and American Indian/Alaskan natives are considered underrepresented at the associate degree and certificates of one year or more levels, while African-Americans and American Indian/Alaskan natives are considered underrepresented at the baccalaureate degree level.

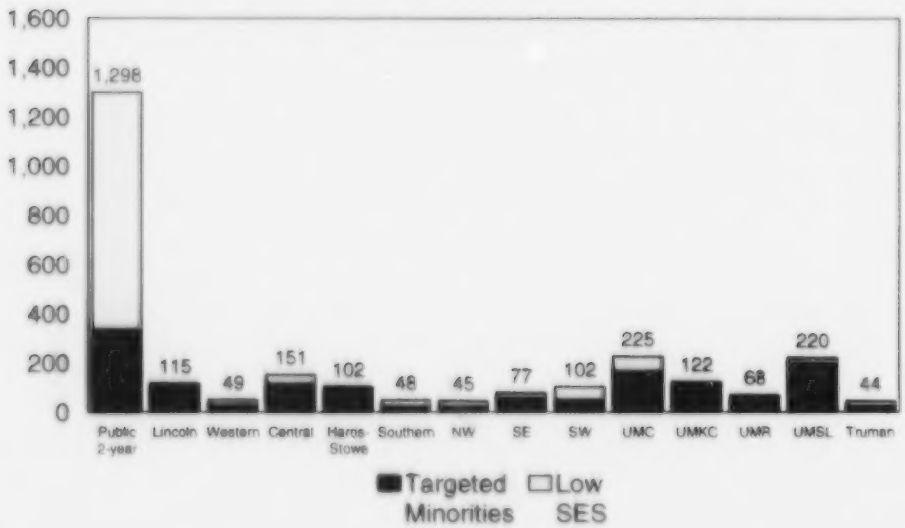
Based on these new definitions, the following baseline data have been established for historically underrepresented groups as defined for the FFR program.

In FY 1996, students with a low SES profile represented only a small proportion of the undergraduate degrees and/or certificates--9.3 percent of associate degrees and certificates of one year or more and 1.5 percent of baccalaureate degrees. These proportions increase when targeted minority groups are added. Of the 7,123 associate degrees and certificates of one year or more awarded in FY 1996, 1,298 degrees--18.2 percent--(an unduplicated headcount) were awarded to students from underrepresented groups, of which 661 (50.9 percent) were to students with a low SES profile. Of the 19,857 baccalaureate degrees awarded in FY 1996 (an unduplicated headcount of students from underrepresented groups), 305 (22.3 percent) were classified as having a low SES profile. Of the 7,123 associate degrees and certificates of one year or more

awarded in FY 1996, an unduplicated count of 1,298 (18.2 percent) were awarded to students from underrepresented groups, of which 661 (50.9 percent) were to students with a low SES profile. Of the 19,857 baccalaureate degrees awarded in FY 1996, an unduplicated count of 1,368 (6.8 percent) were awarded to students from underrepresented groups, of which 305 (22.3 percent) were classified as having a low SES profile (Chart 15)

Chart 15

Degrees Conferred to Underrepresented Groups*, FY 1996



*At the associate degree level, African-American, Asian, and American Indian/Alaskan native
At the baccalaureate degree level, African-American and American Indian/Alaskan native

GOAL 4: (FFR) **All newly certified public school teachers entering the profession must be as highly qualified as possible.**

By 1996, 90 percent of the students admitted to state-approved teacher education programs will attain an enhanced ACT composite score at the 66th percentile and/or an equivalent score of 265 or above on the C-Base.

The proportion of prospective teachers entering state-approved teacher education programs in the public four-year colleges and universities who are reported as meeting this admission standard declined between 1992-93 and 1996-97, dropping from 74 percent to 65 percent. The 65 percent

of prospective teachers who met the goal in 1996-97 is 72 percent of the 90 percent goal (Chart 16). As indicated in Chart 17, only one institution, the University of Missouri-Columbia, met the 90 percent goal in 1996-97. Three institutions, Missouri Western State College, Southwest Missouri State University and Truman State University report that at least 80 percent of their perspective teachers met the board's admission goal for students enrolling in teacher education programs.

Chart 16

Percent of Certified Public School Teachers Meeting CBHE Admission Recommendations (ACT Composite at the 66th Percentile and/or a Score of 265 or Above on the C-Base)

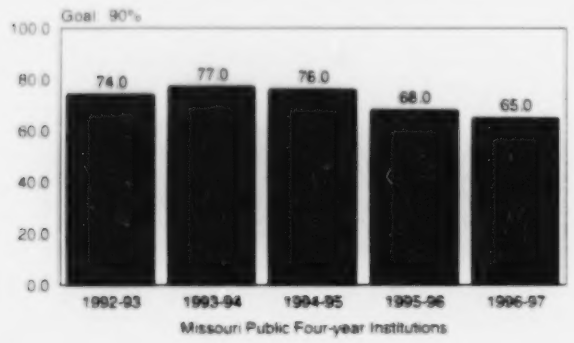
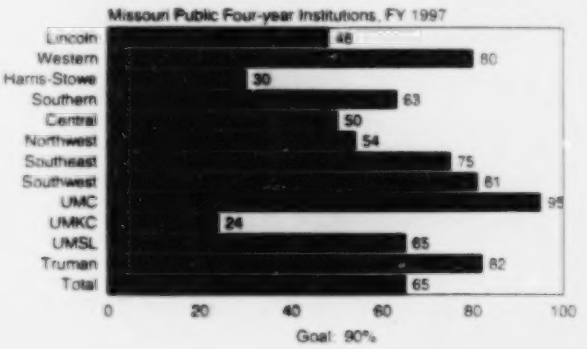


Chart 17

Percent of Certified Public School Teachers Meeting CBHE Admission Recommendations (ACT Composite at the 66th Percentile and/or a Score of 265 or Above on the C-Base)



80 percent of the prospective secondary school classroom teachers will attain a level of performance on nationally normed Major Field Achievement Tests in their content field, which equals or exceeds the national average, i.e., at or above the 50th percentile.

Major Field Achievement Test scores are not reported to the CBHE by individual disciplines. While institutions did report aggregate performance scores across content fields, they did not report the number of students who took the test. Across all content fields, the percent of graduates recommended for secondary certification who scored above the 50th percentile on a Major Field Achievement Test in the content field increased between 1992-93 and 1996-97 from 9.0 percent to 30.3 percent.

Exit assessment scores on the National Teacher Examination (NTE) for at least 80 percent of the newly certified teachers will equal or exceed the national average, i.e., at or above the 50th percentile.

Sixty-nine percent of this goal has been achieved with 55 percent of Missouri's prospective teachers scoring at or above the 50th percentile on the NTE in 1996-97 (Chart 18). Institutional

performance varies considerably, with only one institution, Truman State University, achieving the goal in 1996-97 (Chart 19).

Chart 18

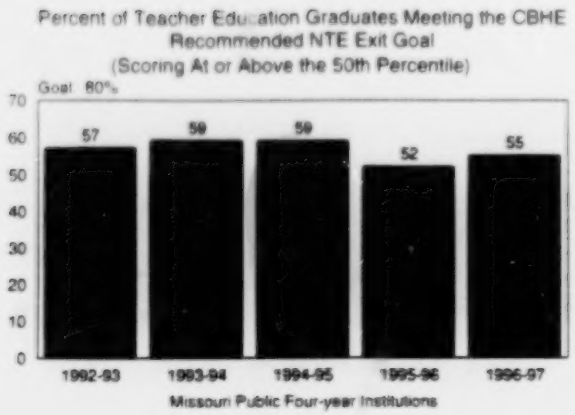
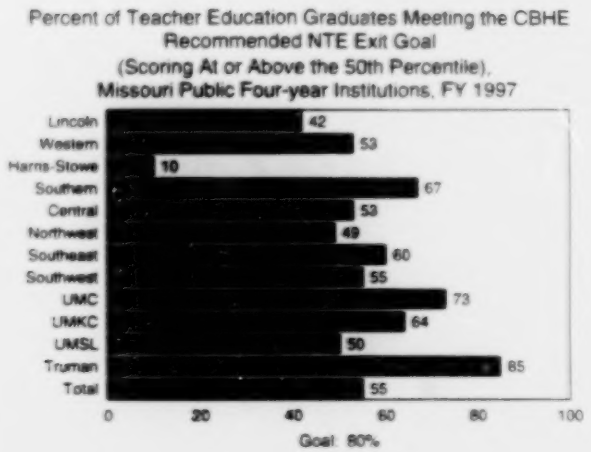


Chart 19

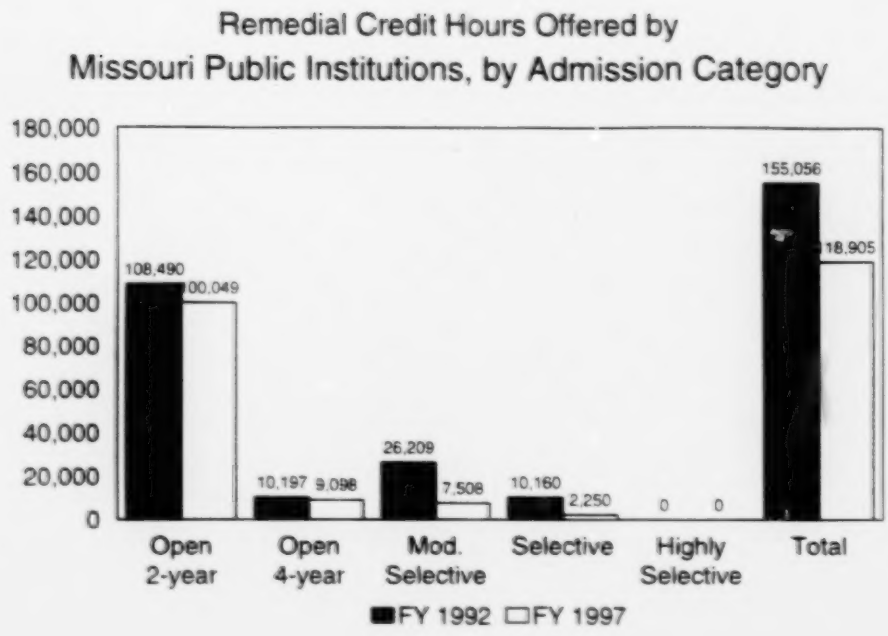


If Missouri's prospective teachers were typical of teachers across the nation, only fifty (50) percent would have scored at or above the 50th percentile. The proportion of students graduating from Missouri's public colleges and universities state-approved teacher education programs exceeded the national average by 5 percent in 1996-1997 (55 percent compared to 50 percent). In addition, as increasing numbers of nationally-normed test scores become available and are reported, there is a tendency for the proportion of students scoring at or above the national average to gravitate toward the national average.

GOAL 5: While all Missouri colleges and universities will provide appropriate instructional and student support services, no public four-year institution which is highly selective or selective will offer formal remedial course work.

This goal has been achieved by four of the five institutions pursuing a selective admissions policy (the University of Missouri campuses at St. Louis, Kansas City, and Rolla, and Southwest Missouri State University) as well as Truman State University, which is pursuing a highly selective admissions policy (Chart 20). The total number of remedial credit hours taught by the state's public four-year colleges and universities declined by 23 percent between FY 1992 and FY 1997, from 155,056 credit hours to 118,905. Eighty-four percent of all remedial credit hours are delivered by the state's public two-year community colleges.

Chart 20



GOAL 6: **No first-time, full-time degree-seeking freshman (or transfer students who have completed 23 or fewer credit hours) who attains a score on the ACT at or below the 33rd percentile, or its SAT equivalent, or has a high school class rank at or below the 33rd percentile, will be admitted to a public four-year college or university which is highly selective, selective, or moderately selective if they reside in a Missouri public community college district or out of state.**

Procedures for data collection and analysis of the above item are currently being considered in the context of analyses performed on the Enhanced Missouri Student Achievement Study database. It has been reported that several public four-year colleges and universities choosing to attain the highly selective, selective, or moderately selective admissions policy are following this goal in their admissions decisions.

GOAL 7: **Admissions decisions at all public institutions will reflect the statewide admissions guidelines for standards appropriate to highly selective, selective, moderately selective, and open enrollment institutions.**

Highly Selective: combined ACT percentile score and high school percentile rank total points which equal or exceed 140, automatic admission with an ACT test score of 27.

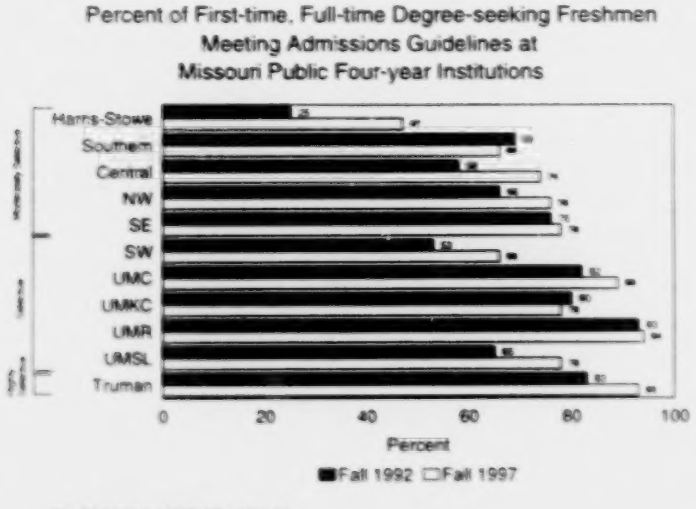
Selective: combined ACT percentile score and high school percentile rank total points which equal or exceed 120, automatic admission with an ACT test score of 24.

Moderately Selective: combined ACT percentile score and high school percentile rank total points which equal or exceed 100, automatic admission with an ACT test score of 21.

Open Admission: students may be admitted based on a high school diploma or its equivalent, but admission to selected programs is based on the program admissions standards.

Beginning with the fall 1996 semester, the proportion of first-time, full-time degree-seeking freshmen who met the various admissions goals was derived from data provided by each institution through the Enhanced Missouri Student Achievement Study. The high school percentile rank was calculated from the high school class rank and high school class size reported for each student. The ACT percentile rank was derived from the ACT composite score that the school provided for each student based on an agreed upon conversion table included in the EMSAS instruction manual. Once the 10 percent exception rate is taken into consideration, the University of Missouri-Rolla and Truman State University have met their goals (Chart 21).

Chart 21



GOAL 8: **Success rates for all first-time, full-time degree-seeking freshmen, defined as the proportion of first-time, full-time degree-seeking freshmen completing 24 or more credit hours by the end of the first academic year and achieving a cumulative college grade point average of 2.0 or better, shall equal or exceed the following:**

- 90 percent at highly selective institutions,
- 85 percent at selective institutions,
- 75 percent at moderately selective institutions, and
- 70 percent at open enrollment institutions.

All public four-year colleges and universities increased the proportion of fall 1996 first-time, full-time degree-seeking freshmen who completed their first academic year with 24 credit hours and a cumulative grade point average of 2.0 over the proportion of fall 1992 freshmen who achieved this goal. The proportion of first-time, full-time degree-seeking freshmen enrolled in Missouri's public two-year community colleges who completed their first academic year with 24 credit hours and a GPA of 2.0 declined from 37 percent in fall 1992 to 30 percent in fall 1996 (Chart 22). A summary by admission category follows:

Open Enrollment Institutions - Goal of 70 percent

- Public two-year community colleges, from 37 percent to 30 percent
- Lincoln University, from 43 percent to 48 percent
- Missouri Western State College, from 41 percent to 46 percent

Moderately Selective Institutions - Goal of 75 percent

- Harris-Stowe State College, from 18 percent to 42 percent
- Missouri Southern State College, from 62 percent to 65 percent
- Central Missouri State University, from 56 percent to 72 percent
- Northwest Missouri State University, from 62 percent to 72 percent
- Southeast Missouri State University, from 48 percent to 67 percent

Selective Institutions - Goal of 85 percent

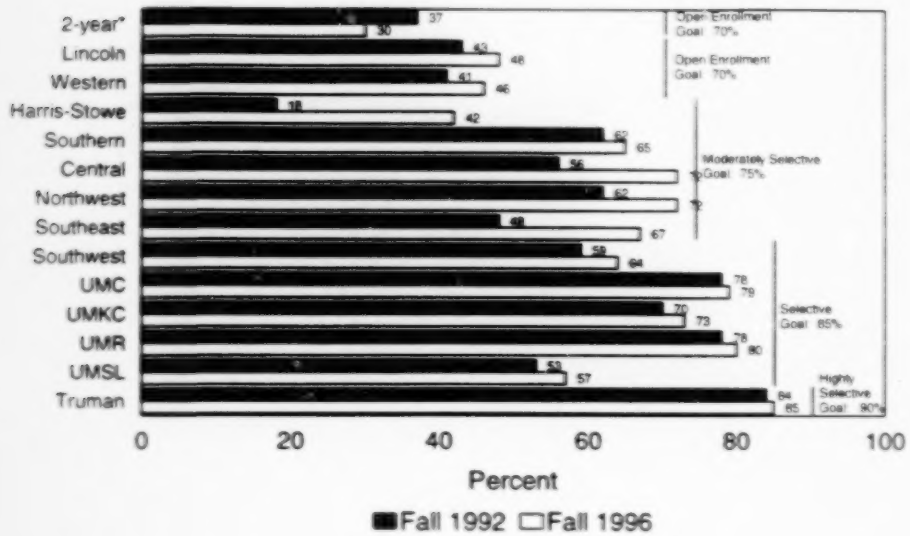
- Southwest Missouri State University, from 59 percent to 64 percent
- University of Missouri-Columbia, from 78 percent to 79 percent
- University of Missouri-Kansas City, from 70 percent to 73 percent
- University of Missouri-Rolla, from 78 percent to 80 percent
- University of Missouri-St. Louis, from 53 percent to 57 percent

Highly Selective Institution - Goal of 90 percent

- Truman State University, from 84 percent to 85 percent

Chart 22

First-time, Full-time Degree-seeking Freshmen Completing the First Academic Year with 24 Credit Hours and a GPA of 2.0



*1995 data do not include Three Rivers. 1996 data do not include Three Rivers or Crowder.
Percentage based on available data.

GOAL 9: **All citizens will have reasonable geographic access to basic general education and vocational instruction at the lower division level through a statewide network of area vocational technical schools and expanded community college service regions.**

Since Governor Mel Carnahan took office in 1992, Missouri has made significant improvements in geographic and programmatic accessibility. According to Governor Carnahan's ***Foundation for a New Century***, The Missouri Budget, Fiscal Year 1999, an estimated 80,000 Missourians were assisted by the state's workforce development system. The FY 1999 budget request provides major investments to develop a high-quality workforce in the state.

The governor issued an Executive Order in 1995 calling for cohesive planning among state agencies making up the workforce development system. The Departments of Labor and Industrial Relations, Economic Development, Social Services, Higher Education, and Elementary and Secondary Education have formed partnerships to increase responsiveness to employees and employers. The following table (Table 2), entitled "Workforce Preparation--$56.5 Million Increase," describes the governor's FY 1999 budget recommendation for workforce development.

Key investments in workforce preparation include:

- Regional postsecondary technical education initiatives
- Community college workforce preparation investments
- Vocational education enhancement grants
- Vocational education equipment enhancement grants
- Linn State Technical College operating budget and the Mexico, Missouri Advanced Technical Center
- A+ School scholarships to enable A+ graduates to pursue technical programs at community colleges
- Area vocational technical school construction and remodeling
- Mission enhancement of selected four-year colleges and universities
- New H.B. 1456 (out-of-taxing-district) outreach centers
- Missouri customized training program increases

Table 2

Workforce Preparation - $56.5 Million Increase

Governor's Program Description	FY 1999 Recommendation
Welfare-to-Work Grant	$ 19,767,398
Regional Technical Education Initiative	5,000,000
Community College Workforce Preparation	3,000,000
Vocational Education Improvement Grants	3,000,000
Linn State Technical College	
-Operating Increase	617,693
-Information Technology Center Construction	5,335,941
-Northeast Missouri Technical Center	1,000,000
A+ Schools	900,000
Area School Construction -- 5 projects	6,776,593
Southeast Missouri State University --Technical Education/Industrial Education Building	5,579,778
Training and Employment Opportunities for Visually Impaired	1,100,000
Food Stamp Training Program	4,405,959
TOTAL INCREASE	**$56,483,362**

State Plan for Postsecondary Technical Education

Since its inception in 1996, the State Plan for Postsecondary Technical Education continues to strengthen the state's technical education capacity through the work of Regional Technical Education Councils (RTECs). These 12 councils, representing the 12 community college service regions, include more than 400 members representing local business, education, and community leaders. The RTEC councils are actively involved in identifying the types and locations of technical education programs needed for labor market training and education, in specific geographic areas.

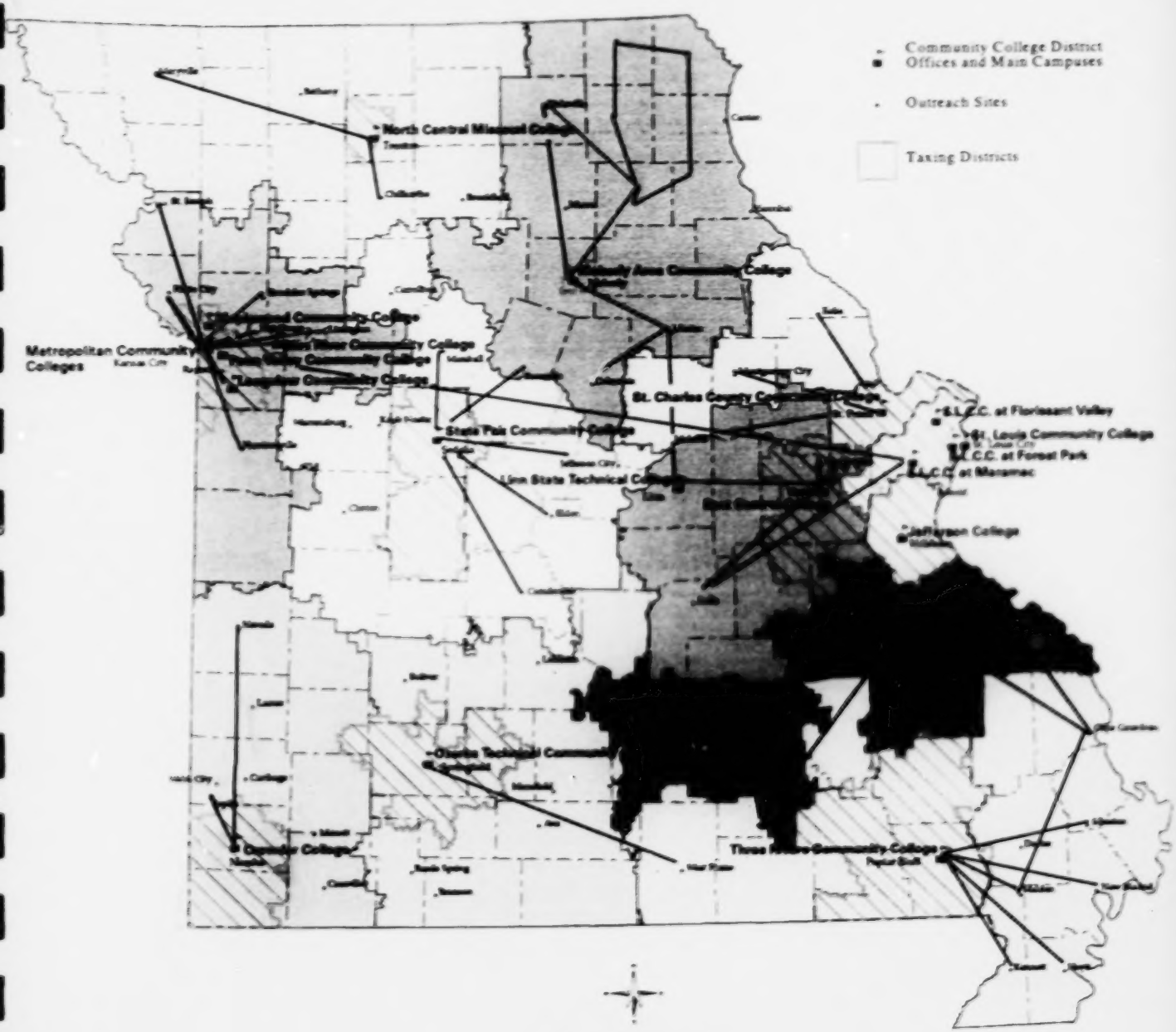
For FY 1999, Governor Carnahan recommended an increase of $5 million to continue implementation of the State Plan for Postsecondary Technical Education. Combined with funding approved in FY 1997 and FY 1998, the budget to expand geographic and programmatic access to technical education will total $14.9 million. This investment enables the state's public two-year community colleges to expand and strengthen student access and to build program capacity in technical education within taxing districts and at out-of-taxing-district sites. In addition, funding was recommended through the CBHE mission enhancement initiative for Southwest Missouri State University-West Plains, Southeast Missouri State University, Central Missouri State University, and Missouri Western State College to strengthen their baccalaureate and master's degree programs in technical fields. As a result of these investments in postsecondary technical education, initiatives are underway to enhance geographic and programmatic capacity in postsecondary technical education and supporting general education (See Map 1), including the following:

- Over three years, 52 of 57 area vocational technical schools will be involved in partnerships with the 12 community college districts, including articulated high school credit toward an Associate of Applied Science degree and/or certificate at the respective community college.

- After three years, 60 new Missouri communities will have local access to postsecondary technical education provided by the state's community colleges and other public and private two- and four-year colleges and universities. This translates into 82 percent of the state's total square miles being accessible to postsecondary technical education.

- After three years, at least 25 new Associate of Applied Science degrees and certificates will be offered, pending CBHE approval, at both the campuses of existing community colleges and at community outreach sites. Proposed programs include mold-making technology, precision machine technology, graphic design/illustration technology, industrial engineering technology, industrial management, industrial maintenance, electrical distribution, integrated manufacturing technology, manufacturing engineering technology, and industrial electronics.

Map 1
Communities Where Postsecondary Technical Education Is Being Delivered and New Instructional Television Networks



Source:
Missouri Coordinating Board for Higher Education

Produced by the Geographic Resources Center,
Department of Geography, University of Missouri.
January, 1998

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With the use of technical education (RTEC) funds, DESE vocational equipment enhancement funds, and the state appropriations to MOREnet, the ability to send and receive courses via electronic two-way compressed video and the Internet has been greatly enhanced. Map 1 shows that the community colleges and area vocational technical schools are beginning to link electronically to deliver technical education and general education courses remotely through instructional television. (See Map 1 and Appendix 1 for existing instructional television networks supported by the State Plan for Postsecondary Technical Education.)

Community College Workforce Preparation

Since FY 1994, the Missouri General Assembly has appropriated $18,640,392 to enhance the existing vocational and technical programs located on the main campuses of the 12 community college districts. In FY 1999, the governor requested a one-time increase of $3,000,000 to sustain the equipment, faculty development, and curriculum development necessary for the training and education of the employers and employees of the community college district. Workforce preparation initiatives also are targeted to assist Missouri's unemployed and under-employed workers, as well as instructional support services for Welfare-to-Work recipients.

Vocational Education Enhancement Grants

Missouri has made a significant effort to exploit the benefits of federal and state Carl Perkins Vocational Education dollars to advance selected secondary and postsecondary vocational and technical programs among the 424 comprehensive high schools, 57 area vocational technical schools, seven four-year institutions, and the 12 community college service regions. Distributions from the Department of Elementary and Secondary Education's Adult and Vocational Education Division are used to enhance existing vocational and technical programs as well as invest in new high-demand occupational training. In FY 1998, $14,578,000 in state funds were distributed to the vocational technical geographic access points across the state.

Vocational Education Equipment Grants

In FY 1998, the Division of Adult and Vocational Education at the Department of Elementary and Secondary Education distributed $3,445,000 to area vocational technical schools and community colleges to upgrade, replace, or purchase new vocational education equipment.

Linn State Technical College

In February 1998, Linn State Technical College officially became a candidate for accreditation with the North Central Association, thereby bringing LSTC one step closer to becoming an accredited postsecondary institution providing advanced two-year technical training programs. LSTC has received CBHE approval to convert the heavy equipment maintenance and repair program from a certificate to an Associate of Applied Science degree. CBHE also approved, or is pending approval of, the following new programs by the end of FY 1999: electrical distribution, construction engineering technology, network systems engineering technology, and

integrated manufacturing engineering technology at the Mexico Missouri Advanced Technical Center.

A+ Schools Program

In FY 1996, FY 1997, and FY 1998, the General Assembly funded DESE's A+ Schools program in the amounts of $7.5 million, $10.5 million, and $13.0 million, respectively. For FY 1999, the governor recommended a $900,000 increase over the FY 1998 amount. By the end of FY 1999, at least 38 public K-12 schools will be designated as A+, and will be able to send A+ graduates to the community colleges, Linn State Technical College, and area vocational technical schools to continue their postsecondary experience. In FY 1999, more than 2,800 A+ graduates will be eligible for state scholarships to pay for their tuition, designated fees, and books for the 13th and 14th years of education.

Area Vocational Technical School Construction and Remodeling

As a result of CBHE's State Plan for Postsecondary Technical Education initiatives, the public community colleges and AVTSs are becoming full partners in delivering postsecondary technical education beyond the immediate confines of the community college district. High-quality, accessible occupational training is vital to prepare individuals for employment or to upgrade their job skills. For the last two fiscal years, Governor Carnahan has recommended funding for projects to improve the quality of current vocational technical programs, respond to increasing enrollment, and enable area vocational technical schools to be more responsive to their respective service area training needs.

In FY 1998, Missouri the General Assembly approved $5.525 million in appropriations to design, renovate, construct or improve the following technical education facilities: Cape Girardeau Vocational School, Lewis and Clark Career Center in St. Charles, Jefferson College Area Vocational School in Hillsboro, Cass Career Center in Harrisonville, Rolla Vocational School, and Warrensburg Area Vocational School.

In FY 1999, Governor Carnahan recommended nearly $6.7 million in appropriations to design, renovate, construct or improve the following area vocational technical schools: Ozarks Technical Community College in Springfield, Cape Girardeau Vocational School, Lewis and Clark Career Center in St. Charles, and the Lamar R-1 School District.

Mission Review and Enhancement of Selected Four-year Colleges and Universities

The state's baccalaureate institutions have an essential role in complementing the implementation of the State Plan for Postsecondary Technical Education. Four four-year institutions, in particular, are strategically located and have agreed-upon mission review and enhancement elements to assist with selected baccalaureate and master's degree programs central to the state plan. These institutions include Missouri Western State College, Central Missouri State University, Southeast Missouri State University, and Southwest Missouri State University-

West Plains (two-year programs). The University of Missouri-Rolla is recognized for its continued role in advanced science and manufacturing-related engineering, research, program delivery, and technology transfer.

For FY 1999, Governor Carnahan recommended $5,579,778 to fund a new technical/industrial education building on the campus of Southeast Missouri State University. This facility will position Southeast to deliver advanced technical education to the southeast Missouri region. A portion of this appropriation is designated for building an outreach technical education center in Sikeston.

H.B. 1456 (Out-of-Taxing-District and Off-Campus Outreach Centers)

In 1998, the Missouri General Assembly enacted legislation to direct state aid to selected off-campus and out-of-taxing-district instructional locations provided by public two- and four-year institutions where prior need and continuous operations are evident. Since 1998, the General Assembly has appropriated nearly $1 million to support centers such as the Bootheel Education Consortium in Malden (operated by Southeast Missouri State University and Three Rivers Community College); Nevada (operated by Crowder College in partnership with Cottey College, Southwest Missouri State University, and UM Extension); Perryville/Serona (operated by Mineral Area College); Lebanon (operated by Ozarks Technical Community College); and Kirksville (operated by Moberly Area Community College).

In the FY 1999 budget request, the Coordinating Board for Higher Education recommended continued appropriations for the above sites, as well as state aid for the following additional sites: Mexico (operated by Moberly Area Community College, Linn State Technical College, and UM Extension); Camdenton (operated by State Fair Community College and Central Missouri State University); Rolla (operated by East Central College); and Cassville (operated by Crowder College).

Bootheel Education Consortium Report

Since beginning operation at its current location in January 1988, the Harry L. Crisp Bootheel Education Center (BEC) has been a model for other state educational institutions by providing several education programs at one location. Consortium partners include Southeast Missouri State University, Three Rivers Community College, the University of Missouri Extension Program, and four area vocational technical schools. The consortium's 1997 Annual states that more than fifty (lower division) credit courses are offered each semester with a fairly equal distribution between day and evening classes; the largest enrollment (522 students) occurred in spring 1997, and 446 enrolled during fall 1996; 177 students, about 40 percent of the fall 1996 enrollment, were new to the center. In 1997, 223 Adult Basic Education students were served at the center, and of these, 51 (23 percent) were members of an ethnic minority. Of the 44 students who took the GED, 80 percent passed. Twelve of the GED students have enrolled in college courses, while 27 have found employment. The 20-member BEC Advisory Council raised more than $250,000 to establish an endowment for scholarship assistance.

The consortium's 1997 Annual Report shows that 43 percent of the students are between the ages of 17 and 23. The percentage of African-American students significantly increased during the fall 1997 term, with enrollment greater than 6.8 percent of total. Students reside in 57 different municipalities from twelve Missouri counties, two in Arkansas and one in Illinois. Because of the unique consortia approach, quality educational and cultural programs are available to meet the diverse educational needs of a rural population that often is overlooked by other, more populous, regions of the state.

Missouri Customized Training Program

Through the cooperative efforts of the Missouri Division of Job Development and Training (JDT), Department of Elementary and Secondary Education (DESE), the CBHE, the community colleges, and the area vocational technical schools, more than $5 million has been invested in customized training each of the last three years. Companies in Missouri have access to a wide range of training services designed to meet their specific needs. By combining the sources of funding and technical education delivery infrastructure, the agencies attempt to serve as many employers and employees as possible. Table 3 demonstrates the extent to which customized training was delivered to Missouri employers across the state from FY 1992 through FY 1997.

Table 3
Missouri Firms and Employees Served Through Customized Training

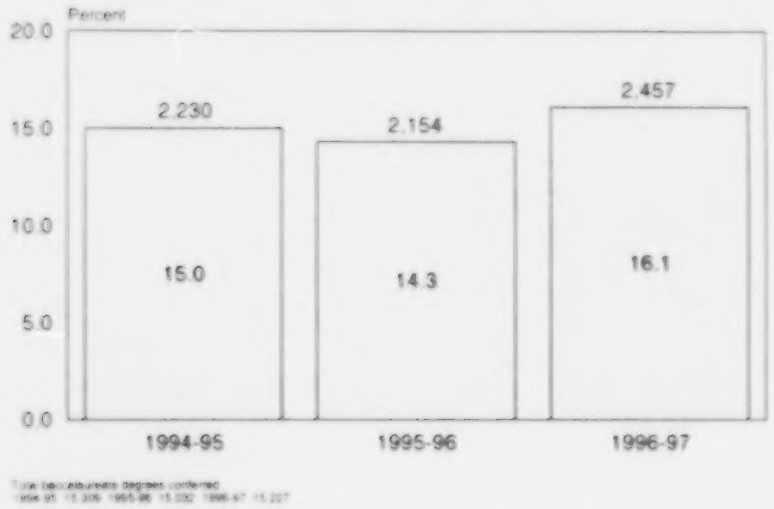
Fiscal Year	Firms Served	Employees Served
FY 1992	155	47,000
FY 1993	176	39,575
FY 1994	188	27,000
FY 1995	147	13,523
FY 1996	187	10,234
FY 1997	295	19,225
FY 1998 (EST.)	220	25,000

GOAL 10: (FFR) **The number of students successfully transferring from Missouri's two-year institutions and completing a baccalaureate degree at one of the state's public or independent four-year institutions will at least double the comparable rate of transfers for academic year 1990-91.**

During 1996-97, 15,227 baccalaureate degrees were conferred by the state's public four-year colleges and universities. Among these baccalaureate degree recipients were 2,457 graduates with 12 credit hours or more transcripted at a Missouri public two-year community college(s) representing 16.1 percent of all 1996-97 baccalaureate degree recipients (Chart 23). This represents a ten (10) percent increase over the 2,230 1994-95 baccalaureate degree recipients with 12 credit hours or more transcripted at a Missouri community college.

Chart 23

Number and Percent of Baccalaureate Degree Recipients from Missouri Public Four-year Institutions Who Took 12 or More Credit Hours at a Missouri Public Two-year Institution



During 1997 and the winter of 1998, extensive work has been completed by the CBHE Committee on Transfer and Articulation in designing a revised credit transfer policy which supports a more student-centered, responsive transfer system.

GOAL 11: The aggregate number of minorities employed statewide by all public and independent institutions collectively as faculty and administrative staff will at least equal their representation in the state of Missouri.

"Representation" was clarified to mean the proportion of the state's population age 18 or older. "Minority" was clarified to mean African-American, Hispanic, American Indian/Alaskan native and Asian. The following analyses, therefore, do not include non-resident aliens, nor do they include unknowns. The state demographer, Ryan Burson, has reported that as of July 1996, the U.S. Census Bureau estimates that 13 percent of Missouri's population age 18 and over was from one of the designated minority groups: African-American, 10 percent; Asian, 1 percent; Hispanic 1 percent; and American Indian/Alaskan native, 1 percent.

The proportion of minority faculty and administrative staff employed by Missouri's public and independent two- and four-year colleges and universities has increased from 14.8 percent in the fall of 1991 to 16.1 percent in the fall of 1997. The proportion of African-American employees

remained constant at just over 10 percent between the fall of 1991 and the fall of 1997 (Chart 24). The proportion of minority full-time faculty at the state's public and independent colleges and universities has increased from 10.1 percent in the fall of 1991 to 11.1 percent in the fall of 1997. The proportion of African-American faculty decreased from 3.1 percent in 1991 to 2.4 percent in 1997 (Chart 25).

Chart 24

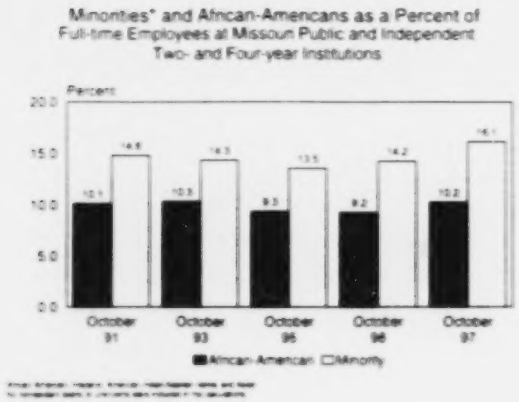
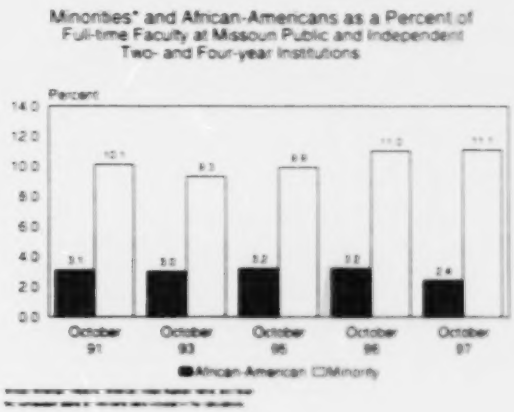


Chart 25



GOAL 12: (FFR) **Degree programs (i.e., majors) offered by Missouri's public institutions shall, at a minimum, satisfy the following criteria:**

- **demonstrate centrality to the sponsoring institution's mission;**
- **provide objective evidence of success in addressing statewide needs and/or contributing toward the attainment of statewide goals;**
- **maintain a critical mass of majors and graduate annually an average, calculated over the prior three years, of at least 10 majors at the associate or baccalaureate degree level, 5 majors at the master's degree level, and 3 majors at the doctoral degree level unless there is sufficient justification for exceptions, particularly in the arts and sciences; and**

The criteria for the approval of new degree and certificate programs include centrality to mission and program need. Performance goals are also submitted for all new degree programs, including student performance outcomes and the level of student satisfaction with the program.

Productivity by individual degree program is analyzed at the campus level. Public four-year institutions engage in systematic review of all degree programs through a campus-based program review process that emphasizes program improvements as well as actions to enhance, maintain, or eliminate program offerings. The CBHE review of degree program performance and productivity occurs within the context of each institution's five-year mission review. The academic program areas reviewed by the public four-year colleges and universities in 1996-97 are listed in Appendix 2.

- **regularly produce highly qualified graduates as demonstrated in the following areas:**

  a. **performance on assessments of general education, including measures of oral and written communication skills and critical thinking;**

All Missouri public two- and four-year institutions have assessment programs in place that measure student performance on assessments of general education. The percent of baccalaureate degree graduates taking either national or local assessments of general education has increased from 71.5 percent to 75.5 percent between FY 1993 and FY 1997 (Chart 26). Assessment of associate degree graduates in general education increased from 19.1 percent to more than 81 percent during the same time period (Chart 27).

The proportion of baccalaureate students taking nationally normed tests of general education has increased from 50 percent to 62 percent between FY 1993 and FY 1997 and nearly three out of five of these baccalaureate graduates scored above average (Chart 28). Chart 29 shows, for each public four-year institution, the proportion of FY 1997 baccalaureate degree recipients assessed with a nationally normed examination of general education and, of those, the proportion of graduates scoring at or above the 50th percentile.

Chart 26

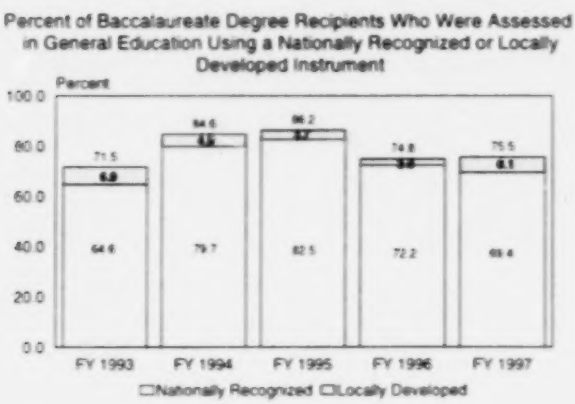


Chart 27

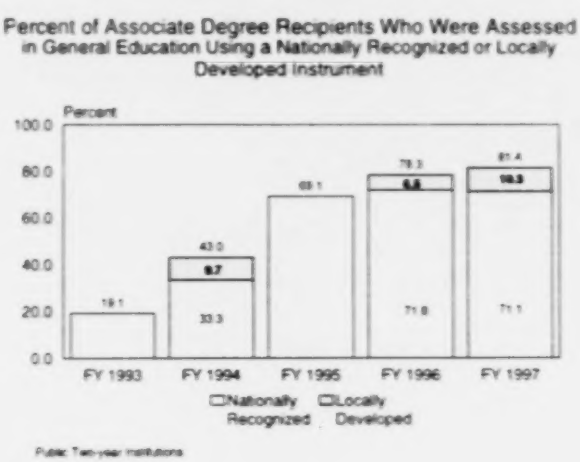


Chart 28

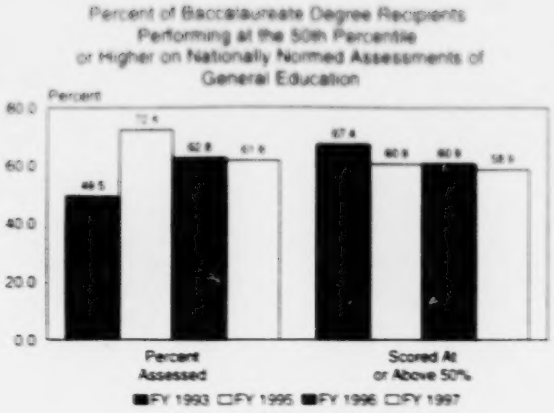
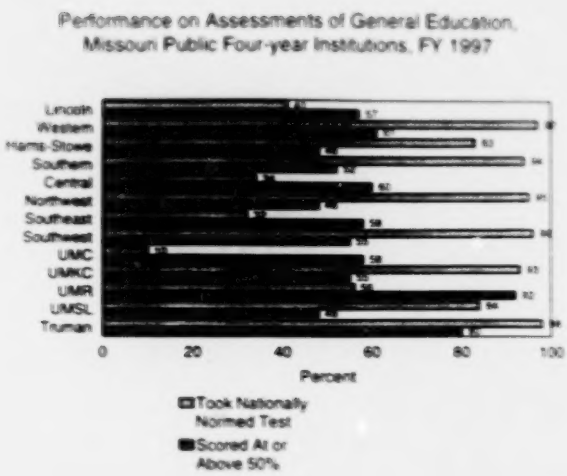


Chart 29



b. performance on nationally normed tests, licensure or certification examinations, and/or other measures of achievement in the major;

All Missouri public four-year institutions have assessment programs in place that measure performance in the major. The percent of baccalaureate graduates taking either national or local assessments in the major between FY 1993 and FY 1997 has increased from 63 percent to nearly 84 percent (Chart 30).

The proportion of baccalaureate graduates taking nationally normed assessments in the major has increased from 39 percent to 58 percent between 1992-93 and 1996-97; however, with the increased number of students taking nationally normed examinations, the proportion of graduates scoring above the national average has gravitated toward the national average, declining from 63.2 percent of all graduates in FY 1993 to just over 53.6 percent in FY 1997 (Chart 31). Chart 32 shows, for each public four-year college and university, the proportion of FY 1997 baccalaureate degree recipients assessed in their major with a nationally normed examination and, of those who were tested, the proportion that scored at or above the 50th percentile.

The percent of baccalaureate graduates taking national licensure, certification, or registration examinations, where a nationally recognized or normed examination in a major field of study does not exist, who had pass scores decreased slightly between FY 1993 and FY 1997, from nearly 83 percent to slightly more than 82 percent (Chart 33).

At the associate-degree level, the percent of degree recipients taking licensure, certification, or registration examinations, where nationally recognized or nationally normed examinations do not exist, with pass scores increased from almost 81.8 percent to nearly 84.7 percent (Chart 34). Pass rates at the certificate level have remained fairly constant, at about 86 percent, between FY 1994 and FY 1997 for those students receiving either a one- or two-year certificate (Chart 35).

Chart 30

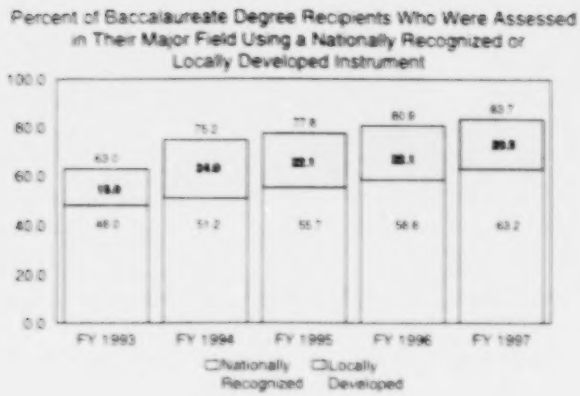


Chart 31

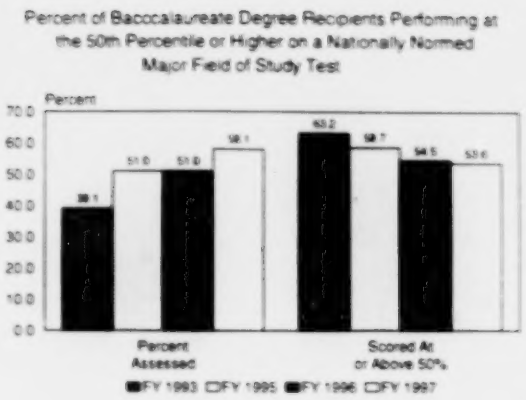
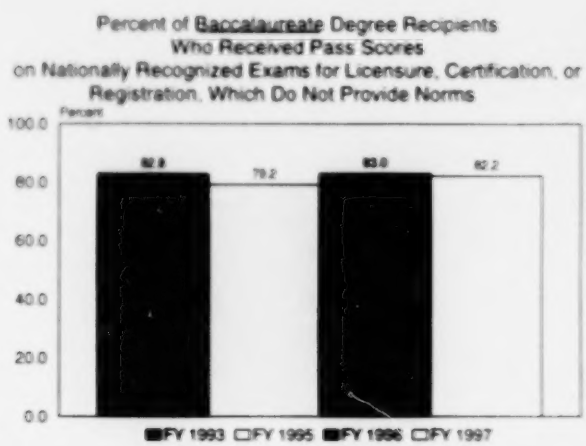


Chart 32

Chart 33



c. average placement rates of those seeking employment which take into account general economic conditions; and

The proportion of community college vocational education program completers finding jobs in fields related to their educational preparation and training increased from 69 percent in 1992 to 76 percent in 1996 (Chart 36). The placement rate for 1996 vocational education completers at Linn State Technical College was 86 percent.

Chart 34

Percent of Associate Degree Recipients Who Received Pass Scores on a Licensure, Certification, or Registration Exam That is Scored Pass/Fail

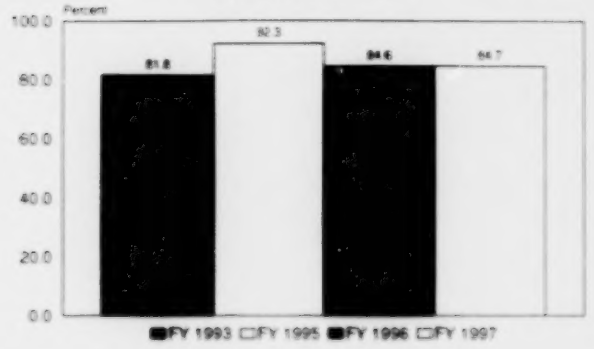


Chart 35

Percent of Certificate Completers Who Received Pass Scores on a Licensure, Certification, or Registration Exam That is Scored Pass/Fail

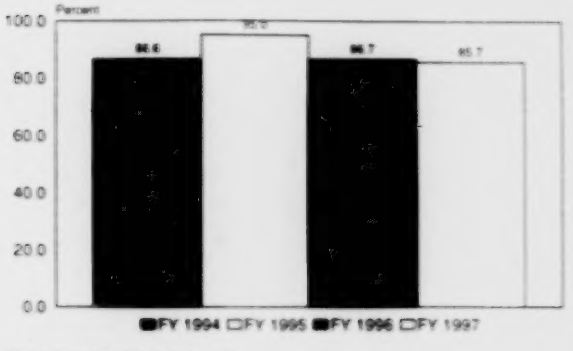
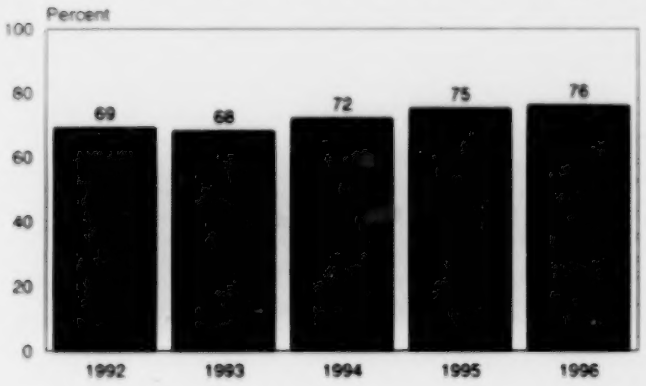


Chart 36

Percent of Community College Vocational Education Program Completers Employed in a Related Field



d. alumni and employer satisfaction rates.

The CBHE staff, in cooperation with the state's public colleges and universities, has conducted statewide surveys of recent college graduates, currently enrolled students, and employers of the state's college graduates. In 1993, surveys of 14,000 students currently enrolled and 2,800 employers of the state's college graduates were conducted. Findings from the 1998 statewide survey of 8,000 currently enrolled students in the state's public colleges and universities administered during the spring 1998 semester are expected by fall 1998. Alumni surveys have been administered to those graduating from one of the state's public colleges or universities during the 1990-91, 1992-93, and 1995-96 academic years. The 1997 survey of 1,681, 1995-96 college graduates revealed the following:

- The primary reasons students choose a particular institution are cost, proximity to family and job, and the availability of a desired academic program; most alumni would have selected the same school had money not been a factor.

- Two- and four-year alumni are basically satisfied with selected facets of their collegiate experiences, with two-year alumni expressing slightly higher levels of satisfaction than their four-year counterparts.

- Most two- and four-year alumni perceive their classroom instruction, course reading material, and course or paper writing assignments to have been somewhat or very rigorous.

- Most two- and four-year alumni feel that they were at least adequately prepared for their current jobs and that they are employed in fields related to their majors.

- High percentages of two- and four-year alumni were pleased with their institutions' overall performance, rating them excellent or good.

- Over one-half of two- and four-year alumni are employed full-time but are earning $24,999 or less annually in jobs they consider to be highly related to their most recent degree, certificate, or diploma.

- Both two- and four-year alumni would have studied more in high school to better prepare themselves for college. In addition, large percentages of two- and four-year alumni would have taken more math, English, natural and social sciences, and foreign language.

GOAL 13: (FFR) **Graduation and time-to-completion rates for first-time, full-time degree-seeking freshmen shall equal or exceed the following, and graduation rates for minority students will be comparable to those attained for all students:**

- 75 percent after 6 years at highly selective institutions
- 65 percent after 6 years at selective institutions
- 55 percent after 6 years at moderately selective institutions
- 45 percent after 6 years at open enrollment four-year institutions and
- 25 percent after 3 years at public two-year community colleges

Missouri Public Two- and Four-year Colleges and Universities

The goal is silent regarding how the graduation rate should be calculated, i.e., based on the number of students graduating from the institution in which they first entered (the home institution) or from any institution in the public sector (a common method being employed in several states). Chart 37 shows the six-year graduation rate of those students entering the colleges and universities in the fall of 1991 who graduated from the institution they first entered (home college or university), as well as the graduation rate of students entering the state's public colleges and universities and graduating, within six years, from any of the state's public institutions (not necessarily the institution they first entered). As indicated in the chart, an

institution's graduation rate is slightly higher when the rate is based on the student graduating from any public institution rather than from the home institution.

Overall, the three-year graduation rate for the state's two-year public community colleges' 1991 freshman cohort is 20 percent for those graduating from their respective home institution and 24 percent from any Missouri public college or university. The three-year graduation rate for the community colleges' 1989 freshman cohort was 21 percent from the home institution and the same as for the 1991 cohort from any institution, i.e., 24 percent. Thus, the three-year graduation rate for the state's community colleges is approaching the CBHE goal of 25 percent for open enrollment two-year colleges.

The overall graduation rate for the 1991 freshman cohort at the state's public-four year colleges and universities graduating from their home institution after six years is 47 percent, which compares to an overall rate of 40 percent for the 1989 freshman. The overall six-year graduation rate for the 1991 freshman cohort at the state's public four-year colleges and universities graduating from any Missouri public college or university is 55 percent, which compares to an overall rate of 47 percent for the 1989 freshmen.

One result of the higher graduation rates at Missouri's public colleges and universities is reported in *Outside Looking In: Comparing Missouri to the Nation*. This report was presented by Mr. J. Leland Johnson of The Medical College of Ohio and Dr. Stephen G. Katsinas of the University of Toledo at the 1997 Missouri Governor's Conference on Higher Education. In the report, Johnson and Katsinas describe how "In 1990, Missouri was well behind the U.S. average for associate, baccalaureate, and graduate and professional degree attainment. Between 1990 and March of 1997, this gap has largely been closed. This represents dramatic progress, the result of enlightened leadership from your legislature, governor, coordinating board, and business and civic communities." The data Johnson and Katsinas used in support of this statement are presented in Table 4.

Chart 37

Three- and Six-year Graduation* Rate of the
1991 Freshman Cohort Who Graduated from Their Home Institution
or Any Missouri Public Institution

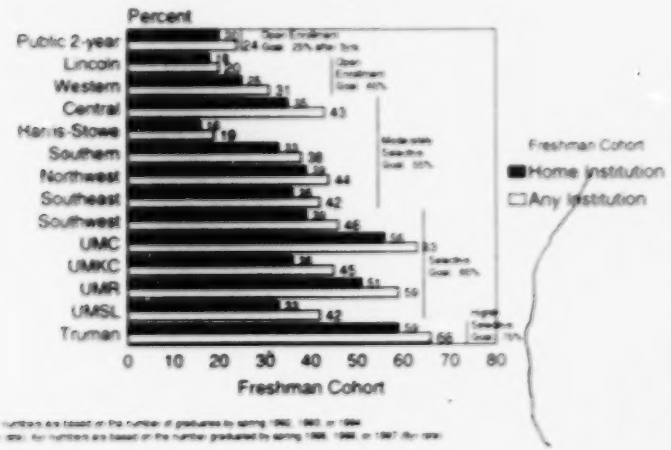


Table 4

Closing the "Gap": Adult Educational Attainment, Missouri & the U.S., 1990 compared to March 1997

Educational Attainment	1990		March 1997	
	MO	US	MO	US
Associate Degree	4.5%	6.2%	6.2%	7.2%
Bachelor's Degree	11.7%	13.1%	15.4%	16.0%
Grad/Prof Degrees	6.1%	7.2%	7.5%	7.8%

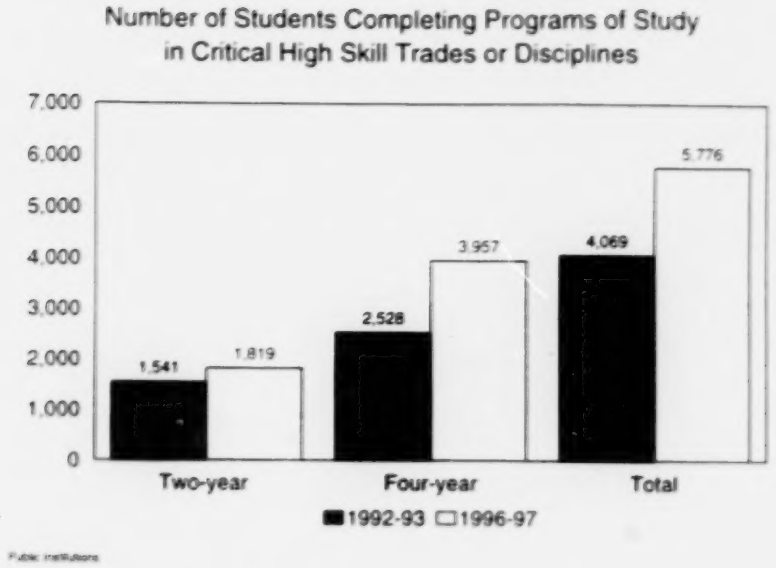
Degree/Certificate Productivity as an FFR Element for Public Two-year Community Colleges

In 1996-97, 5,340 students graduated with associate degrees from the state's public two-year community colleges and Linn State Technical College, which compares to 5,553 or nearly a 4 percent decline from the number of associate degrees conferred in 1992-1993. The number of students receiving certificates of one year or greater was 1,536 in 1996-97, which compares to 1,793 certificates conferred in 1992-93, a decrease of 14.3 percent. Fluctuations in these figures can be attributed to the inclusion of part-time students who complete degrees at variable rates. In addition, the economy has an impact on student enrollment and graduation rates, e.g., finding and obtaining jobs before completing the requirements for the certificate or degree.

GOAL 14: The number of students completing programs of study in those high skill trades and disciplines determined to be critical to Missouri's future and/or in short supply (e. g., machinists, maintenance mechanics, tool and die makers, manufacturing technologies, the physical and life sciences, mathematics, foreign languages, allied health, and nursing) will more than double over the number of degrees conferred in these areas for academic year 1990.

Baseline data were not obtained in 1990-91; however, there has been a 42 percent increase in the number of degrees conferred by Linn State Technical College and Missouri's public two- and four-year colleges and universities in those disciplines determined to be important to the state's future, increasing from 4,069 in 1992-93 to 5,776 in 1996-97, an increase of 1,707 degrees (Chart 38).

Chart 38



Following is a list of the critical disciplines included in this analysis.

Less than one-year certificate programs
More than one-year, less than two-year certificate programs
More than two-year, less than four-year certificate programs
Electromechanical Instrumentation (CIP 15.04)
Environmental Control Technology (CIP 15.0506-15.0507)
Draftig-CAD (CIP 48.05)
Health-related (CIP 51.08-51.10)
Nursing (CIP 51.16)

Associate degree programs
Electromechanical Instrumentation (CIP 15.04)
Environmental Control Technology (CIP 15.0506-15.0507)
Drafting-CAD (CIP 48.05)
Precision Metal Production (CIP 48.05)
Health-related (CIP 51.08-51.10)
Nursing (CIP 51.16)
Life Sciences (CIP 26.01-26.07)
Mathematics (CIP 27.01-27.05)
Physical Sciences (CIP 40.01-40.08)

Baccalaureate degree programs
Foreign Languages (CIP 16.03-16.12)
Health-related (CIP 51.08-51.10)

Nursing (CIP 51.16)
Life Sciences (CIP 26.01-26.07)
Mathematics (CIP 27.01-27.05)
Physical Sciences (CIP 40.01-40.08)

Master's degree programs
Foreign Languages (CIP 16.03-16.12)
Health-related (CIP 51.08-51.10)
Nursing (CIP 51.16)
Life Sciences (CIP 26.01-26.07)
Mathematics (CIP 27.01-27.05)
Physical Sciences (CIP 40.01-40.08)
Engineering (CIP 14.02-14.32)

Doctoral degree programs
Foreign Languages (CIP 16.03-16.12)
Life Sciences (CIP 26.01-26.07)
Mathematics (CIP 27.01-27.05)
Physical Sciences (CIP 40.01-40.08)
Engineering (CIP 14.02-14.32)

It is important to note that this list was established in 1992 following the Missouri Business and Education Partnership Commission report as well as several other reports by different regional and statewide groups at the time, e.g., the St. Louis Civic Progress report. The Task Force on Critical Choices also identified these as areas of critical need and requiring attention. While it may be important to continue reporting on the number of degrees being conferred in those disciplines identified as being critical in 1992, it is just as important that this list be reviewed and discussed within the context of manpower needs of the late 1990s and beyond.

Such a review is merited because, in many cases, substantial progress has been made in meeting the state's need for increased numbers of graduates from selected fields. For example, nursing probably would not be identified as an area of critical shortage in 1998, even though nursing would undoubtedly continue to be identified as an occupation requiring high skills. In addition, while computer-related programs were not identified as being critical in 1992, the demand for computer information systems network and hardware technicians would clearly be identified in 1998.

Several actions by the CBHE have contributed to the progress the state is making in graduating more students from many of these identified degree programs. New programs in health and allied health have been approved and funded at Southwest Missouri State University (SMSU) as a result of SMSU's mission review. Missouri Southern State College's mission review has led to an international emphasis throughout its curriculum as well as a focus on the study of foreign languages. The approved mission of Central Missouri State University as the state's lead university in professional applied science and technology at the baccalaureate and master's degree levels will lead to new programs being approved and funded which address some of the critical disciplines identified in 1992. In addition, the CBHE has approved a new AAS-degree program

in Manufacturing Engineering Technology for Missouri Western State College to offer in cooperation with N.S. Hillyard Area Vocational Technical School in St. Joseph.

Finally, the state's investment in the board's State Plan for Postsecondary Technical Education is, in part, to increase the number of associate degree-level recipients in many of the technical fields and related technologies associated with these critical disciplines (See Goal 9).

GOAL 15: (FFR) **The percentage of Missouri's baccalaureate graduates scoring above the 50th percentile on nationally normed exit assessments in their major field of study will rank among the 10 highest recorded for all states; furthermore, the number of baccalaureate graduates scoring above the 80th percentile on appropriate nationally normed assessments will double.**

Missouri does not currently have data on the performance of students from other states. The proportion of Missouri baccalaureate degree recipients scoring at or above the 50th percentile on nationally normed assessments in the major field of study is nearly 54 percent. (See Goal 12 for further detail.)

GOAL 16: (FFR) **Missouri's public and independent doctoral degree-granting universities should strive to have graduate programs recognized nationally as being among the best in the United States:**

In February 1998, *U.S. News & World Report* published its latest edition of the best graduate schools and programs in the country. The rankings, while disputed by many institutions, do provide information about graduate and professional schools and programs that have achieved some level of national recognition. Based on reports from the academic community, *U.S. News* produced rankings for the five major areas of graduate study—medicine, business, law, education, and engineering—as well as specific disciplines that fall under these general areas.

Major area of study and specific disciplines mentioned in this report are listed below:

Washington University

- School of Business
  Executive M.B.A. Program
- School of Law
- School of Medicine
  Pediatrics
  Women's Health
- School of Engineering

- Ph.D.'s
  Political Science
  Biological Sciences
  Microbiology
  Neurosciences
  Pharmacology/Toxicology
  Geology
- Health Disciplines
  Audiology
  Occupational Therapy
  Physical Therapy
  Social Work
- The Arts
  Architecture
  Creative Writing
  Fine Arts

University of Missouri-Columbia

- School of Law
- School of Medicine
  Family Medicine
- School of Education
  Counseling
  Vocational/Technical
- Public Affairs

University of Missouri-Kansas City

- School of Law
- The Arts
  Drama/Theater

Saint Louis University

- School of Law
  Health Law
- Health Disciplines
  Physician Assistant

The Coordinating Board's mission review of the University of Missouri noted how few graduate and professional schools and programs have achieved the stature of being recognized nationally. As a consequence of this review, the FY 1999 mission enhancement funding for the University of Missouri recommended by the Coordinating Board includes funding to advance selected graduate programs to enable them to become recognized nationally by the academic community.

- **by having all students who are admitted to graduate programs for which there is a nationally normed admissions test (e.g., GRE, MAT, LSAT, etc.) submitting such scores prior to admission to Missouri's graduate programs with 66 percent of all first-time graduate students scoring above the 50th percentile on the respective examinations;**

Chart 39 shows that the proportion of first-time, full-time graduate and first professional students submitting entrance examination scores at the four campuses of the University of Missouri increased from 74 percent to 86 percent between FY 1994 and FY 1997. The percentage of those submitting scores and scoring at or above the 50th percentile on those entrance examinations increased from 82 to 83 percent between FY 1994 and FY 1997.

During the same period, the state's other master's degree-granting institutions (Central, Lincoln, Northwest, Southeast, Southwest, and Truman) increased the proportion of first-time, full-time graduate students submitting entrance examination scores from 55 to 66 percent. In addition, the percentage of those who submitted scores and scored at or above the 50th percentile on those examinations increased from 53 to 58 percent (Chart 40).

Chart 39

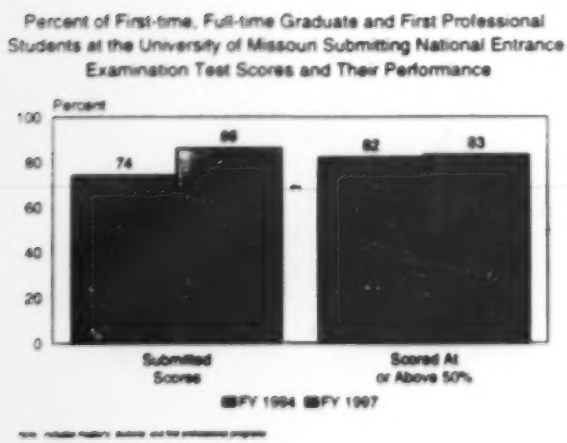
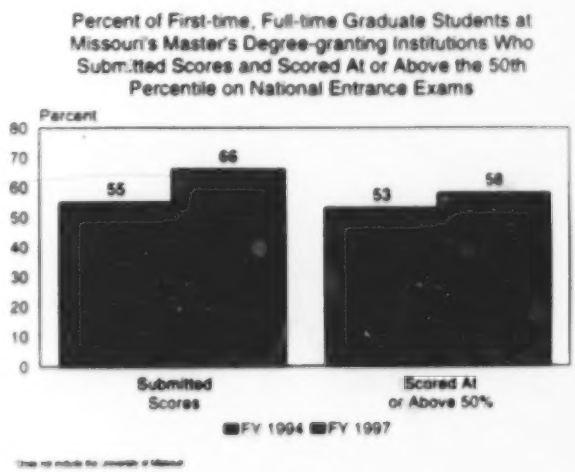


Chart 40



- **by increasing the number and proportion of doctoral degrees awarded in each program to citizens of the United States;**

In FY 1992, 541 (76 percent of the total) doctoral degrees from Missouri institutions were conferred to U. S. citizens; in FY 1997, the figure was 524 (72 percent of all doctoral degrees).

- **by having all academic divisions/departments of Missouri's public and independent colleges and universities provide their faculty with electronic access to state, national, and international education/research communication networks;**

The goal of providing high-speed Internet access for faculty has been almost universally achieved at Missouri's public and independent colleges and universities. Universal high-speed Internet access for students is also assumed at many colleges and universities. The educational and research needs of Missouri higher education for a high-speed state network is being addressed through appropriations to the Missouri Research and Education Network (MOREnet). The first dedicated appropriation for the general funding of MOREnet was initiated in FY 1998 with a $5 million appropriation to the University of Missouri, which serves as host to MOREnet. This appropriation is being used to provide a connection to the national Internet, to fund the Missouri backbone, and to provide a 1.4 megabit connection to each of the public two- and four-year colleges and universities.

For FY 1999, the CBHE requested and the governor and House of Representatives have supported a $10.7 million appropriation to fund the Missouri Research and Education Network. Funding will allow Missouri to:

- Obtain a high-speed connection to the Internet of at least 775 megabits for all MOREnet members and customers
- Operate a high-speed state backbone of at least 155 megabits for all MOREnet members and customers, providing capability for an interactive video backbone and multipoint conferencing
- Provide a 10 megabit or greater connection from each public higher education institution to the state backbone
- Provide management, operation, and training costs and software licenses on behalf of MOREnet to member colleges and universities

In order for institutions to make maximum use of Internet connectivity and information technology in general, a strong campus infrastructure must exist. Since FY 1995, Missouri has invested a total of $14.8 million in its community colleges and nearly $26 million ($25,893,870) in the state's public four-year colleges and universities for instructional and information

technology. The rapid pace of change in information technology has made it extremely difficult for institutions to remain current with technology needed for teaching and research.

- **by improving computer-based linkages among all college and university libraries, enhancing access and exchange opportunities as well as expanding interactions via national and international networks; and**

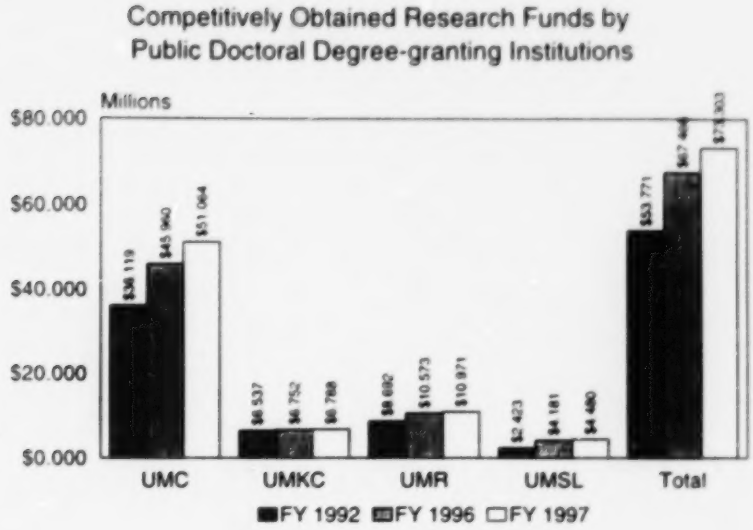
During FY 1998, the council of public four-year colleges and universities (COPHE) employed Joseph Ford and Associates, Inc., a library consulting firm, to develop a plan for a common library platform in Missouri. A plan and budget for this common platform is provided in the consultant's report, *Missouri Academic Libraries and Their Automated Futures*. This document describes a system in which all bibliographic holdings are contained in one computer software system serving Missouri's public and independent academic libraries. These libraries collectively own approximately fourteen million volumes. The system will allow direct patron borrowing between institutions, allowing an authorized patron at one library to place a direct borrowing request to another common library platform. The system would use Missouri's investment in MOREnet to facilitate a high-speed connection between each participating academic library and the computer host site. The CBHE's FY 1999 appropriations request for this project has been supported by both the governor and the House of Representatives. Missouri institutions are presently working on a memorandum of understanding that would establish a consortium to operate the computer and software systems needed to support the common library platform. The consortium of academic libraries may also be involved in development of an interlibrary delivery system to guarantee rapid movement of documents among institutions.

- **by increasing by 50 percent, by 1996 , the amount of money awarded on a competitive basis to Missouri's public research universities from both federal and other external sources for basic and applied research grants and contracts.**

Between FY 1992 and FY 1997, the amount of funds the University of Missouri campuses obtained for research on a competitive basis increased 36 percent, from $53,771,000 in FY 1992 to $73,303,000 in FY 1997, an increase of $19,532,000 (Chart 41).

GOAL 17: Excluding positions funded by grants, contracts, and other restricted income sources as well as self-supporting auxiliaries, until such time that a Missouri public higher education institution attains ratios for administrative and non-instructional staff-to-faculty that are in the most efficient quartile for comparable institutions nationally, the annual rate of growth in its administrative and non-instructional personnel shall not exceed one-half the annual rate of growth in full-time faculty.

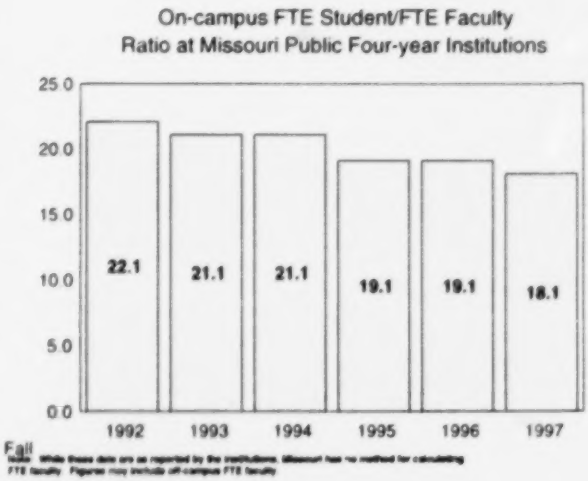
Chart 41



One measure of an institution's efficiency, or academic effectiveness, is its student to faculty ratio. Chart 42 shows that the state's public four-year colleges and universities have reduced the overall student to faculty ratio from 22 to 1 in 1992 to 18 to 1 in 1997.

Between FY 1994 and FY 1997, the number of faculty positions funded by unrestricted education and general funds at the state's public four-year colleges and universities increased from 6,382 to 6,634 but decreased from 1,562 to 1,547 at the public two-year community colleges. The number of positions for all other employees also increased between FY 1994 and FY 1997 at the state's public four-year colleges and universities, from 7,166 to 7,665, and increased from 1,810 to 2,005 at the public two-year community colleges (Chart 43).

Chart 42



The three-year average annual rate of change in the number of positions funded by unrestricted education and general funds at the public four-year institutions, from FY 1994 through FY 1997 is 1.7 percent for faculty and 3.1 percent for other employees. The three-year average annual rate of change for the public two-year community colleges is negative 0.2 percent for faculty and 8.4 percent for all other employee categories (Chart 44).

Chart 43

FTE Positions Funded by Unrestricted Education and General Funds

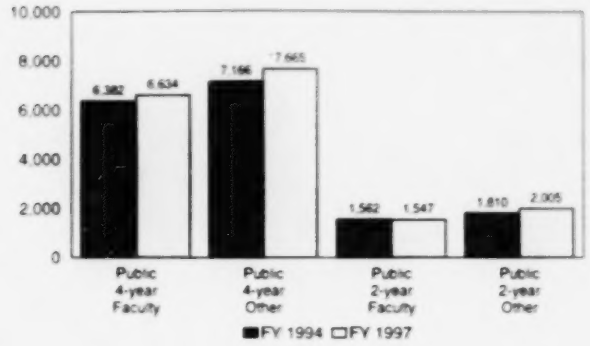
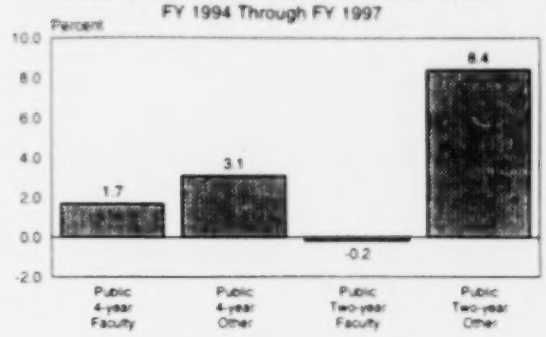


Chart 44

Three-year Annual Rate of Change in the Number of FTE Positions Funded by Unrestricted Education and General Funds, FY 1994 Through FY 1997



GOAL 18: Missouri's public four-year institutions will adopt workload policies that result in average teaching assignments for all tenured and tenure-track faculty by institutional type consistent with the following:

- **9 hours at highly selective, selective, and research institutions**
- **12 hours at all other public four-year institutions**

Workload policies are one component of institutional mission differentiation and are analyzed at the campus level as part of the annual campus-based review process. Faculty use of time is dependent upon the balance of responsibility among teaching, research, and service assignments. Recent external recognition of Missouri institutions for the quality of their instructional programs include:

- Central Methodist College, Park College, Saint Louis University, Southwest Missouri State University, and William Jewell College — 1997-98 John Templeton Foundation Honor Roll for Character-Building Colleges
- University of Missouri-Columbia — 1997 TIAA/CREF Theodore M. Hesburgh Award for Faculty Development to Enhance Undergraduate Teaching and Learning
- University of Missouri-Kansas City — Council for Advancement and Support of Education 1997 Professor of the Year

GOAL 19: The Charles E. Gallagher Grant Program (formerly the Missouri Student Grant Program) will be strengthened by:

- **being fully funded to provide for all eligible applicants;**

Since FY 1992, the CBHE has made a persistent effort to increase the funding of the Charles E. Gallagher Grant Program. For FY 1999, the CBHE has requested an increase of $1,384,531 (or 13 percent) for the general revenue portion of the program. This is intended to fund inflation in student fees and to compensate for an estimated reduction of $750,000 in federal funds or provide approximately 577 more awards to eligible students, assuming a $1,300 average annual award.

The CBHE continues its commitment to ensuring financial access to the 13th and 14th years of education for all Missouri citizens. This involves both strengthening the Gallagher Grant Program and providing policy leadership and educational outreach for the proposed Bridge Scholarship Program for which Governor Carnahan has recommended an initial appropriation of $4.9 million in his FY 1999 budget recommendation. In addition, federal financial assistance programs such as the Pell grant and the HOPE tax credit help ensure financial access to higher education.

MOSTARS

In 1997, the Coordinating Board reorganized its state scholarship, grant, and loan programs into one division - MOSTARS. MOSTARS' primary mission is to be a statewide "one stop shop" to provide postsecondary assistance to Missouri's families in three major areas: student financial assistance programs, customer services and support, and early awareness of postsecondary education. Through the state and federal student assistance programs nearly 86,000 students receive grants, scholarships, and loans totaling approximately $288 million annually. MOSTARS also provides and utilizes electronic systems and software products, that effectively serve all clients and support program administration. In addition, MOSTARS is currently planning to initiate early awareness and outreach activities regarding postsecondary access for Missouri citizens.

Notwithstanding, the state's effort to provide greater financial access to higher education for those students eligible for the Charles E. Gallagher Grant Program, Johnson and Katsinas in their December 1997 report *Outside Looking In: Comparing Missouri to the Nation*, note that "Missouri's policy has not historically been targeted to provide its neediest students choice as well as access." By comparison, Missouri's need-based financial aid comprised only 1.8 percent of the total mix of the federal and state financial aid package, compared to the national average of 5.7 percent. The percentage of non-need-based financial aid, 49.2 percent, was more than double the national average of 21.7 percent. Missouri, therefore, ranked 31st among the 50 states in its

total state investment in need-based student financial aid, as contrasted to 12th in non-need-based aid (Table 5).

Table 5

The Mix of State Student Financial Aid: Missouri and the U.S., 1995

	Need-Based	Non-Need Based	Pell Grant Participation
MO	1.8%	49.2%	25.7%
US	5.7%	21.7%	25.7%
MO as a % of U.S. Average	31.5%	227%	SAME

- **increasing the maximum award to $3,000 or one-half of an institution's tuition and required fees, whichever is less, conditional on the program being fully funded;**

The Coordinating Board's recommendations have been to fund all eligible applicants prior to increasing the award amount.

- **requiring the completion of the Coordinating Board for Higher Education's recommended high school core curriculum of grant recipients graduating from high school in the spring 1996 semester and thereafter; and**

- **requiring the task force's recommended standards for admission to teacher education programs of grant recipients admitted to state-approved teacher education programs.**

Procedures for data collection and analysis of the above two items are currently under development and are anticipated to be routine analyses of the Enhanced Missouri Student Achievement Study.

GOAL 20: (FFR) **While state funding must address the core operating budget needs of public institutions, the Coordinating Board for Higher Education shall utilize its funding recommendations, financial incentives, and rewards for performance as well as targeted funds to achieve focused institutional missions and improvements in institutional performance; such programs may include but are not limited to the following performance measures:**

- **implementing admission decisions appropriate to institutional missions;**

- **improving student performance in general education and the major field of study;**
- **increasing participation and graduation of historically underserved populations, particularly minorities, as well as increasing the proportion of faculty and staff from historically underrepresented populations;**
- **improving institutional graduation and time-to-completion rates, particularly in critical high-skill trades and disciplines;**
- **encouraging students to continue their formal education through transfer or post-baccalaureate study;**

Funding for Results (FFR), one of the board's major strategic initiatives, utilizes a select number of performance indicators based on priorities established by previous planning efforts. Beginning with FY 1994 for public four-year institutions and FY 1995 for public two-year institutions, a portion of new money has been appropriated to each institution's core budget based on the board's FFR budget recommendations. Funding for Results is intended to result in greater accountability, continuous improvement, and quality assurance. Between FY 1994 and FY 1998, $31,061,300 in FFR dollars has been added to the base budgets of Missouri's public four-year colleges and universities, representing 19.8 percent of new money allocated. Included in this amount is a $2.5 million annual allocation for teaching/learning improvement projects. Between FY 1995 and FY 1998, public two-year institutions have received a $4,896,890 increase in their base budgets in FFR dollars, representing a 13.5 percent increase in new money. Included in this amount is $1.3 million dedicated annually to teaching/learning improvement projects.

A description of the Funding for Results elements for both two- and four-year institutions follows.

Assessment of Graduates

Description: Institutions are encouraged to engage in systematic assessment of student outcomes and to build assessment programs on campus which will meet North Central Association standards. The allocation is based on a per capita headcount.

Public Four-year: This element has been included each year beginning with the FY 1994 budget recommendation. Initially, assessments of student outcomes of general education and the major were counted. Beginning with the FY 1997 budget recommendation, only general education assessment qualifies for this element. The allocation amount started at $400 per assessed graduate (for FY 1994) and is now $100 per assessed graduate. Institutions are permitted to use either nationally recognized or locally developed instruments.

Public Two-year: This element was introduced with the FY 1997 budget request. In the first year, institutions were asked to indicate how many students they expected to assess. The element is now based on actual assessment rather than planned assessment. Assessments using nationally recognized or locally developed instruments of general education qualify. The allocation amount was set at $10 per student and represented a symbolic commitment to integrate an assessment element into the FFR program for two-year institutions. The allocation has increased to $35 per student.

(See Goal 12 for results.)

Success of Underrepresented Groups

Description: This element relates to the state's goal to increase the participation and success of historically underrepresented populations. The allocation is based on a per capita headcount.

Public Four-year: This element has been included each year beginning with the FY 1994 budget recommendation. For FY 1994, only African-American graduates at the baccalaureate-degree level were included. Beginning with FY 1996, the element was expanded to include Hispanic and Native American graduates and to include any degree level. For the FY 1998 budget recommendation, this element was again expanded to include a cohort analysis of FY 1993 financially at-risk students who were re-enrolled for at least 72 hours of coursework at the baccalaureate level. Beginning with the FY 1994 recommendation, the allocation was $1,000 for each graduate in one of the targeted groups. Beginning with FY 1998, this amount was reduced to $600. For FY 1999, all baccalaureate degree recipients who were determined to have a low socioeconomic status (SES) profile at point of entry, as well as minority students without a low SES from targeted groups determined to be underrepresented, were included. Minorities with a graduation distribution lower than the group's percentage in the Missouri population 18 years old or older are considered underrepresented.

Public Two-year: This element has been included each year beginning with the FY 1995 budget recommendation. African-American graduates with associate degrees or certificates of one year or greater were included. Beginning with FY 1996, the element was expanded to include Hispanic and Native American graduates. For FY 1998, this element was again expanded to include a cohort analysis of FY 1993 financially at-risk students who had graduated. For FY 1999, the definition of this element is treated similarly to that of the four-year institutions. The allocation began at $500 for each graduate and was reduced to $300 beginning with FY 1997.

(See Goal 3 for results.)

Performance of Graduates

Description: The inclusion of this element represents movement from quantity counts to qualitative measures. This element has emphasized student outcomes on assessments of general education (four-year students only) and in the major. The allocation is based on a per capita headcount.

Public Four-year: This FFR element was first introduced in the FY 1995 budget recommendation. The number of baccalaureate graduates who have been assessed using a nationally normed assessment of general education and/or in the major and who scored at or above the 50th percentile are counted. Also included are baccalaureate graduates who passed national licensure, certification, or registration examinations which do not have national norms and baccalaureate graduates who received awards in a national or state competition in fields which do not have national standardized assessments. The allocation started at $1,000. Beginning with the FY 1996 budget recommendation, the amount was reduced to $500 for each graduate who met the above standards.

Public Two-year: The element was first introduced in the FY 1998 budget recommendation. In the first year, performance was limited to pass scores on national examinations that led to licensure, certification, or registration. For FY 1999, this element was expanded to include each Associate of Arts (AA) graduate who scored at the 50th percentile on a nationally normed assessment of general education. The allocation is $35 for each graduate who meets the standard.

(See Goals 12 and 15 for results.)

Quality of Prospective Teachers

Description: This FFR element relates to the state's goal to have all newly certified public school teachers enter the profession as highly qualified as possible. The allocation began as a per capita headcount, but is now based on the percentage of each institution's success in meeting the stated goal.

Public Four-year: This element was introduced with the FY 1996 budget recommendation. Emphasis is placed both on the preparation level of entering students and the performance of graduates on exit examinations. Target goals are to have 90 percent of entering students with an ACT composite score at the 66th percentile or a 265 on each subtest of the C-Base and to have 80 percent equal or exceed the national average on the National Teacher Examination (NTE). The allocation began with a per capita headcount for each graduate who met the minimum standard for entry and exit scores. Beginning with FY 1999, the allocation was based on the percentage of each institution's graduates who met entry and/or exit standards multiplied by a percent of the funding recommendations for on-campus institutions.

(See Goal 4 for results.)

New Graduate Students

Description: This FFR element relates to the state's goal to have graduate programs at Missouri's institutions recognized nationally as being among the best in the United States. The allocation is based on a per capita headcount.

Public Four-year: This element was introduced with the FY 1996 budget recommendation. Institutions are encouraged to require students to submit scores on appropriate national examinations, e.g., GRE, MAT, LSAT, in the admissions process. The target goal is for 66 percent of entering graduate students to score above the 50th percentile on the respective examination. The allocation is $500 for each new graduate student who meets the standard.

(See Goal 16 for results.)

Attainment of Graduation Goals

Description: This FFR element relates to the state's goal to increase an institution's graduation and time-to-completion rates for first-time, full-time degree-seeking freshmen. Institutions are encouraged to design programs and to provide support services for the timely completion of the baccalaureate degrees. The allocation is based on the percent of success an institution has in meeting its targeted goal.

Public Four-year: This element was introduced with the FY 1996 budget recommendation. Target goals were established for each institution based on its declared admission category, i.e., open enrollment, moderately selective, selective, or highly selective. The allocation is based on a cohort analysis. Institutions are encouraged to make improvements in the graduation rate of each entering cohort of first-time, full-time freshmen.

(See Goal 13 for results.)

Certificate/Degree Productivity

Description: This FFR element relates to the state's goal to increase the number of students graduating with certificates of one year or more and associate degrees from public two-year institutions. The allocation is based on a per capita headcount.

Public Two-year: This element has been included each year beginning with the FY 1995 budget recommendation. Certificates of one year or greater and associate degrees are included. The allocation began at $100 for each graduate, but was increased to $110 beginning with FY 1999.

(See Goal 13 for results.)

Successful Job Placement

Description: This FFR element relates to the state's emphasis on technical training at the associate degree level that prepares students for success in the workplace. The allocation is based on a per capita headcount.

Public Two-year: This element was introduced with the FY 1997 budget recommendation. Based on a 180-day follow-up study of graduates, institutions are rewarded for each graduate of a

vocational program who is placed in a job-related or military-related position. The amount of allocation is $125 for each student who meets the standard.

(See Goal 12 for results.)

Transfers to Four-year Institutions

Description: This FFR element recognizes and encourages the transfer function of community colleges and links to the state's goal of increasing the number of students from the two-year sector who successfully transfer and complete a baccalaureate degree. The allocation is based on a per capita headcount.

Public Two-year: This element has been included each year beginning with the FY 1995 budget recommendation. For FY 1995, the element included any student who was enrolled in the four-year sector who had some transcripted credit from a two-year institution. The element has been redefined to emphasize a minimum number of hours at the two-year institution(s) and successful graduation from a four-year institution. Graduates of four-year institutions with baccalaureate degrees who have had at least 12 hours of transcripted credit from the two-year institution(s) are included. For FY 1995, the allocation was $100 for each student meeting the standard. Beginning with FY 1998, the allocation has been increased to $125 for each student who meets the standard.

(See Goal 10 for results.)

Campus Funding for Results

Description: This FFR element represents the board's commitment to expand performance funding to the campus level. Institutions are encouraged to design and implement campus FFR programs that recognize and reward teaching/learning improvement projects. To be eligible, campus projects must involve faculty, establish agreed-upon measurements, utilize baseline data, include incentives for performance, and engage in systematic evaluation.

Public Four-year: This element was introduced with the FY 1997 budget recommendation. For FY 1997, institutions were recommended for $2,000,000 in campus FFR funds based on a formula distribution. A minimum of $75,000 was established for each campus, and the remainder was distributed based on each institution's percent of general revenue. Additional funds were recommended for FY 1998 and FY 1999 based on a target goal of having one percent of planned expenditures on instruction identified for teaching/learning improvement projects.

Public Two-year: This element was introduced with the FY 1997 budget recommendation. For FY 1997, institutions were recommended for $800,000 in campus FFR funds based on a formula distribution of $50,000 per campus. Additional funds were recommended for four campuses in FY 1998 and for five campuses in FY 1999, based on a target goal of having one percent of planned expenditures on instruction identified for teaching/learning improvement projects.

(See Goal 22 for results.)

- **developing distinctive programs and more focused missions; and**

Mission review is one of five strategic planning initiatives of the Missouri Coordinating Board for Higher Education included in its Blueprint for Missouri Higher Education. Through this process, institutions develop plans to focus on what they do well and need to enhance, what they are not doing but need to do, and what they currently do that should be eliminated. Strategies to help institutions become more distinctive in what they are and do are mutually identified by the institution and the Coordinating Board. Performance measures are established to assess mission achievements and demonstrate accountability. Mission enhancement plans are funded through the reallocation of institutional funds and, for selected strategies, state appropriations recommended by the Coordinating Board.

Mission enhancement encourages specialization by minimizing duplication of programs and emphasizing programmatic excellence. In addition, it addresses specific demographic and industrial needs of the region and state, develops institutional academic themes, and emphasizes partnerships.

Each of Missouri's colleges and universities has established a unique mission that enhances the quality and efficiency of the entire system. As institutions sharpen their areas of distinctiveness and focus their missions, Missourians will have access to a wide variety of high-quality, distinctive programs.

In response to the passage of Senate Bill 340, section 173.030 (7) RSMo, the Coordinating Board for Higher Education adopted, on June 15, 1995, a three-phase schedule to review each public institution's mission (Chart 45).

Mission and Role

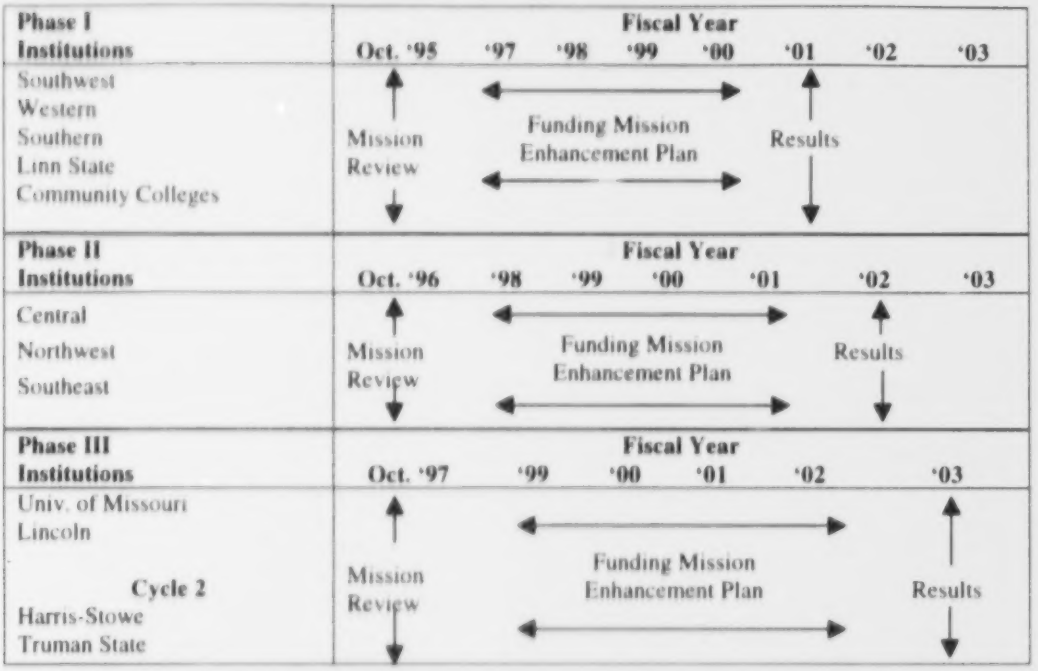
PHASE I INSTITUTIONS

Southwest Missouri State University: Master's-level, selective admissions institution with a statewide mission in public affairs, providing programmatic access for southwest Missouri, with a two-year branch campus in West Plains and a research station in Mountain Grove

- Redesign courses to reflect the emphasis on public affairs
- Develop new programs, especially at the master's-degree level, in professional education, health care, business and economic development, and the performing arts
- Expand BearNet services
- Develop new AAS-degree programs in technical education at the West Plains campus

Chart 45

Mission Review Schedule



PHASE I INSTITUTIONS (CONTINUED)

Missouri Western State College: Baccalaureate-level, open enrollment institution focusing on access to learner success, with a special retention program, Access Plus, serving the greater St. Joseph area

- Increase participation in Excellence in Teaching initiatives
- Improve support services for and increase the academic success of at-risk students
- Partner with N.S. Hillyard Area Vocational Technical School in providing technical education and training in the St. Joseph area

Missouri Southern State College: Baccalaureate-level, moderately selective admissions institution with an international emphasis, serving the greater Joplin area

- Establish an Institute for International Studies
- Expand foreign language programs
- Internationalize the curriculum
- Enhance language learning through language immersion programs

Linn State Technical College: Associate of applied science degree-granting institution with open/selective enrollment and a mission focusing on programmatic access to highly specialized technical education

Community Colleges: Associate degree-granting institutions with open enrollment admissions specializing in workforce development; Missouri's lead institutions in delivering postsecondary technical education in partnership with the state's area vocational technical schools

Phase II Institutions

Central Missouri State University: Master's-level institution with moderately selective admissions and a statewide mission focusing on programmatic access to professional applied sciences and technologies

- Strengthen the "academic technology" infrastructure
- Add and enhance degree programs in advanced applied sciences and technologies at the baccalaureate- and master's-degree levels
- Strengthen the state's corps of vocational/technical education instructors
- Enhance the telecommunications network and public television station

Northwest Missouri State University: Master's-level, moderately selective admissions institution serving northwest Missouri through the extended electronic campus

- Develop a Center for the Application of Information Technology
- Develop modularized courses and make them available statewide
- Continue to apply quality concepts using the Baldrige criteria
- Facilitate the operation of the Northwest Missouri Educational Consortium

Southeast Missouri State University: Master's-level, moderately selective admissions institution serving southeast Missouri through extended partnerships, with special emphasis on experiential learning

- Emphasize experiential learning in the curriculum
- Provide distance learning opportunities through SEE-NET and the Southeast Missouri Educational Consortium
- Improve access for non-traditional and transfer students
- Establish a center of excellence in advanced manufacturing

Phase III Institutions

University of Missouri System: Selective statewide, land-grant university with four campuses, focusing on qualitative improvement in graduate, doctoral, and professional programs and research through endowed chairs, distinguished professorships and enriched funding for selected programs; and increasing the national stature and recognition of selected graduate programs and areas of research

University of Missouri Outreach and Extension Program: Increase access to the resources of the University of Missouri and, in partnership with the state's public and independent colleges and universities, provide financial, geographic and programmatic access to the state's system of higher education through Telecommunications Community Resource Centers (TCRCs)

University of Missouri-Columbia:

- Focus on graduate and professional education and research
- Improve health and increase agricultural productivity by emphasizing programs in the life sciences
- Apply research to social, economic, educational and governmental issues
- Increase the number and proportion of full-time faculty teaching undergraduate students

University of Missouri-Kansas City:

- Enhance graduate education programs and research
- Emphasize and strengthen programs and research in the biological and health sciences
- Enhance the national recognition of visual and performing arts programs

University of Missouri-Rolla:

- Enhance research and educational programs in manufacturing, materials, environmental and geotechnical engineering and science; infrastructure engineering; and instructional technology
- Expand technology transfer and applied research through enhanced outreach programs to Missouri businesses
- Increase program articulation with pre-engineering programs offered by the state's community colleges

University of Missouri-St. Louis:

- Strengthen programs for academically superior students and increase the involvement of undergraduates in research
- Enhance the urban context for graduate programs in health, science and technology, and education
- Increase access to baccalaureate completion programs for students at area community colleges and to master's- and doctoral-degree programs for students at area baccalaureate degree-granting colleges and universities

Lincoln University: 1890 land-grant, master's-level institution with open enrollment admissions focusing on access to learning success, serving mid-Missouri

- Enhance and increase collaborative partnerships
- Enhance programs in business administration, elementary education, criminal justice/law enforcement, and nursing science
- Develop new courses and programs to be offered at night and on weekends for residents of mid-Missouri and employees of state government
- Increase graduation and retention rates of the university's historical student clientele

- Increase statewide access to the university's African-American and ethnic studies library collections

PHASE III – CYCLE 2 INSTITUTIONS

Harris-Stowe State College: Baccalaureate-level, moderately selective admissions institution with selected applied professional programs, serving the city of St. Louis

- Add degree programs in selected applied professional fields to meet needs in the city of St. Louis
- Enhance and refine existing programs in business administration, teacher education, and criminal justice
- Increase and enhance 2 plus 2 programs with St. Louis Community College

Truman State University: Highly selective, master's-level liberal arts and sciences university, focusing on the quality of the teaching and learning environment

- Become nationally recognized as a public liberal arts and sciences university through an enhanced liberal studies program and culture
- Attract and retain quality faculty
- Enhance support to the teaching/learning process
- Increase the number and proportion of graduates going on to graduate and professional schools
- Implement a visiting distinguished scholars program

Independent Colleges and Universities and Private Career Schools
Add diversity and strength to the state's system of higher education through focused missions — from single program private career schools to baccalaureate liberal arts and sciences colleges to major doctoral and professional degree-granting research universities

Through the combined resources of strong public and private schools, colleges and universities, Missourians have access to a balanced, high-quality system of higher education.

A significant portion of the CBHE's recommended FY 1999 increase for the general operations of the state's public four-year colleges and universities has been targeted to help the institutions achieve their respective missions. For FY 1999, as a result of mission review, the CBHE recommended a total of $25,542,759 in mission enhancement funds for Missouri's public four-year colleges and universities:

Phase I Institutions	
Southwest Missouri State University	$2,400,000
Missouri Southern State College	$531,131
Missouri Western State College	$653,750
Phase II Institutions	
Central Missouri State University	$1,875,000
Northwest Missouri State University	$1,108,500
Southeast Missouri State University	$1,525,000

Phase III Institutions	
University of Missouri	$15,000,000
Lincoln University	$6 ,500
Phase III-Cycle 2 Institutions	
Harris-Stowe State College	$501,878
Truman State University	$1,250,000

After the first year of mission review, funding recommendations to assist institutions in meeting their agreed upon missions are based partially on annual performance reports the institutions make to the CBHE on the progress and success in achieving their missions.

- **achieving administrative efficiency goals.**

The CBHE reports annually the number of full-time employees by occupational category at public and independent institutions in the *Statistical Summary of Missouri Higher Education*. This report is used by the colleges and universities to monitor their staffing patterns.

Efforts are being undertaken to improve the transfer and exchange of student academic transcripts among institutions based on electronic data interchange (EDI) standards. Currently, Bob Lowe from the Metropolitan Community Colleges is leading a statewide effort to implement SPEEDE/ExPRESS, a nationally developed system to electronically transfer academic records between high schools and colleges, or between two colleges, using EDI standards.

Several other efforts are employed by the state's colleges and universities to become more efficient. These include contracting for their food services and plant maintenance programs, cooperatively supporting MOREnet (the state's backbone to the national Internet) and working to de lop a common library platform which will enable them to share their respective library holdings as though their entire collections were one.

Several Missouri institutions have received state and national recognition for their efforts to become more efficient and to promote efficiencies within the higher education delivery system through collaborative planning and partnerships. Those receiving such recognition in 1997 include:

- Northwest Missouri State University — 1997 Missouri Quality Award
- Drury College, Rockhurst College, Truman State University, University of Missouri-Columbia, Washington University, Westminster College, and William Jewell College — *Money* magazine's 1998 Best College Buys

- College of the Ozarks, Drury College, Truman State University, and Washington University — *U.S. News and World Report* 1998 Top 20 Best Colleges and Universities in the Midwest Region for quality and low cost

- Mineral Area College — 1997 Governor's Award for Special Achievement and Excellence (Leadership in Workforce Development)

GOAL 21: **All state-owned higher educational facilities will be adequately maintained, and modern equipment widely used by business and industry will be available to Missouri's students and faculty.**

Since 1993, the Missouri General Assembly has appropriated over $365 million for capital renovation and new construction at Missouri institutions of higher education. In addition to these capital projects, Missouri has continued to include ongoing maintenance and repair funding in the operating budgets of the institutions. For FY 1998, $24,183,088 was appropriated for this purpose. The goal of the CBHE has been to achieve an appropriation of 1.5 percent of facility value ($29,945,000 for FY 1999) for maintenance and repair purposes. For FY 1999, the governor recommended and the House of Representatives has concurred that $26 million be reserved in the operating budget for maintenance and repair.

Although the facilities of the community colleges are not owned by the state, the community college funding statutes do recognize the need for funding maintenance, repair, and equipment in an amount up to 10 percent of the state aid appropriations for the colleges. For FY 1998, the community college budget included $3,198,764 for this purpose. The CBHE recommendation for FY 1999 suggests that the appropriation be increased by $2,291,975 to $5,490,739.

To enhance the instructional equipment available to students and faculty at the state's public colleges and universities, the Coordinating Board has recommended, and the state has invested, more than $52 million in academic equipment between FY 1995 and FY 1996, ($33,734,912 at the public four-year colleges and universities, $18,300,000 at the state's public two-year community colleges.

GOAL 22: **(FFR)** **The Coordinating Board for Higher Education shall issue an annual accountability report for Missouri's system of higher education which shall describe the success of Missouri's public and independent colleges and universities in attaining agreed upon statewide goals.**

Each year the Coordinating Board for Higher Education produces and distributes the *Statistical Summary of Missouri Higher Education* and the *Directory and Statistical Summary, Proprietary Sector of Missouri Postsecondary Education,* as well as its *Annual Report* to the governor, legislators, and persons interested in Missouri higher education.

A performance indicator report was first presented to the board in October 1993, showing selected baseline data for the performance goals; and in June 1995, an updated report was presented showing the progress public four-year colleges and universities were making toward the attainment of selected goals. In February and April 1996, the *Progress Toward the Statewide Public Policy Initiatives and Goals for Missouri Higher Education* was reviewed and discussed by the CBHE Presidential Advisory Committee. A subsequent progress report was presented to the CBHE Presidential Advisory Committee and the Coordinating Board in April 1997 as this report is being presented in April 1998.

Funding for Results, the Coordinating Board's performance funding program, links budget recommendations with assessment and accountability. Additional information can be found under Goal 20 in this document. With support from a Fund for the Improvement of Postsecondary Education (FIPSE) grant, the CBHE began working with institutions in 1994 to refine and expand its performance funding program. Incentives are provided to institutions for designing and implementing a mission-based performance funding program as a way to stimulate and document improvements in teaching and learning on each campus.

The campus FFR program has resulted in the sponsorship of many innovative teaching/learning initiatives on 29 public two- and four-year campuses. For FY 1999, two additional campuses, Linn State Technical College and Blue River Community College of the Metropolitan Community Colleges, have made commitments to design teaching/learning improvement projects. Many institutions have chosen to use FFR campus funds to support multiple projects. While the long-term impact of this initiative is not known, initial results suggest an increase in interest and enthusiasm by faculty. Literally hundreds of faculty and thousands of students have benefited from the opportunity to explore new methods of promoting student success. At the 1996 Governor's Conference on Higher Education, four institutions were recognized for having outstanding FFR projects. Each year, institutions submit annual reports which are shared with the larger community to promote teaching/learning improvement throughout Missouri. The annual accountability report describes the teaching/learning issues and includes information about the number of faculty and students involved, the incentive/allocation structure, the outcomes, and the lessons learned. Selected results from the 1996-97 accountability reports suggest that greater retention, higher grade point averages, and increased satisfaction result when students are involved in learning communities. At-risk students experience higher completion and increased retention when participating in specialized instruction, and mean ACT scores increase when students are involved in critical thinking projects.

GOAL 23: **Every effort will be made to attain sufficient additional funding for Missouri's public two- and four-year colleges and universities and the Missouri Student Grant Program to implement the goals and objectives of this report; however, many of these goals and objectives require few if any additional resources and should be pursued regardless of the attainment of additional funding.**

As seen in Charts 46 and 47, state appropriations for Missouri public higher education institutions increased by more than $200 million between fiscal years 1993 and 1998. That increase consists of $150 million for public four-year institutions and $50 million for public two-year colleges. Appropriation requests in FY 1999 would add another $75 million.

Chart 46

STATE FUNDING FOR FOUR-YEAR COLLEGES AND UNIVERSITIES

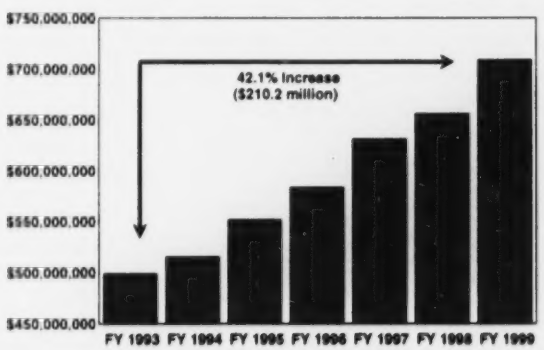
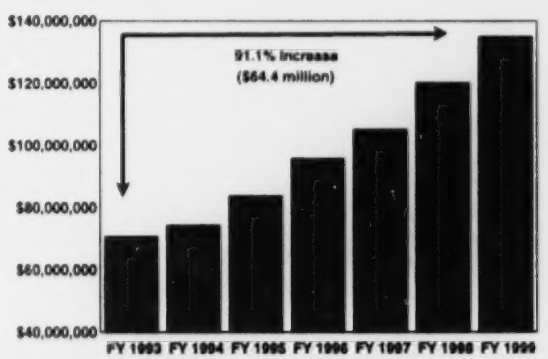


Chart 47

STATE FUNDING FOR COMMUNITY COLLEGES



Note: FY 1997-1999 includes Regional Technical Education Council (RTEC) initiatives.

The FY 1999 budget request on behalf of the institutions and the Department of Higher Education exceeded $1 billion for the first time. Governor Carnahan also recommended that the Missouri General Assembly appropriate more than $1 billion for higher education. This support recognizes how critical colleges and universities are in preparing Missourians for the 21st century.

Missouri's current funding model permits public institutions to request funding on the basis of several components, including a core appropriation that maintains funding of programs at existing levels, an inflation adjustment for education and general expenses, program improvements and strategic enhancements. The FY 1999 budget request is organized around several strategic initiatives. Those initiatives and the funding request for each include:

$ 14,965,000 for the State Plan for Postsecondary Technical Education

$ 13,375,408 for a telecommunications-based delivery system, including a common library platform

$ 27,535,626 for performance funding for two- and four-year institutions

$ 25,542,759 for mission enhancements at all public four-year colleges and universities

$ 972,446 to expand and enhance community college programs to unserved geographic areas outside their taxing districts

GOAL 24: Missouri will have a system of governance for postsecondary education that will provide a coordinated, balanced, and cost-effective delivery system of the highest quality while recognizing the relative merits of institutional autonomy and the necessity of achieving statewide goals by:

- **differentiating institutional missions on the basis of differing admission policies, providing incentive funds to assist both public and independent institutions in meeting statewide needs, and rewarding institutional successes;**

(See Goal 20 regarding distinctive programs and focused missions.) The mission implementation planning schedule approved by the CBHE on June 15, 1995 demonstrated its commitment to pursuing the development of differentiated missions among the public institutions. Phase II institutions (Central, Northwest, and Southeast) completed their respective first-year mission plans and prepared their first-year budget request for mission enhancement in October 1996. Phase III institutions (the University of Missouri, Lincoln, Harris-Stowe, and Truman) completed their mission review with the Coordinating Board in October 1997.

The CBHE is directly involved with each community college and the Regional Technical Education Councils in each community college service area in an effort to develop a focused, well-funded technical education program that is geographically accessible to a large portion of the state's population.

- **benefiting from the strength of its independent colleges and universities through contracts for specific programs and services consistent with statewide needs; and**

Through the provisions of both the Academic Scholarship Program and the Charles E. Gallagher Grant Program, the CBHE is providing financial access for thousands of Missouri students at the state's independent colleges and universities.

In addition, Missouri's independent colleges are actively engaged with the state's public institutions and the Coordinating Board in developing and implementing new and enhanced programs for the state's system of public and independent postsecondary education. Examples of the partnerships between the public and independent sectors include collaborating on the development and implementation of:

- new academic program review and approval procedures;
- degree credit transfer and program-to-program articulation guidelines;
- a common library platform involving joint state/institutional funding (estimated to be $15 million over the first five years); and
- enhanced MOREnet capacity for service to institutions ($10.7 million state request for FY 1999).

MOSTARS provides quality customer services to all Missouri postsecondary institutions participating in the state and federal student assistance programs. These services enable the participating institutions to effectively administer their student assistance programs. All institutional sectors are also represented on MOSTARS' statewide student financial aid advisory council.

- **encouraging, supporting, and rewarding its institutions of higher education for increasing their involvement in resource sharing and cooperative ventures with other Missouri schools, colleges, universities, businesses, and industries as well as with other institutions, nationally and internationally.**

In 1996, the board received a resource group report containing recommendations and guiding principles for a statewide telecommunications-based delivery system. In 1997, the Telecommunications Advisory Group developed implementation strategies based on the concepts presented to the CBHE in the 1996 report. Principles of good practice were suggested to promote cooperation among members of regional planning organizations, to maximize the accessibility and quality of offerings, and to reduce unnecessary program duplication. The resource sharing opportunities presented by telecommunications technologies are indeed limited only by the creativity and imagination of the faculties at the state's public and independent colleges and universities.

Missouri's higher education institutions also are expanding their involvement in cooperative partnerships for the delivery of academic degree programs. A number of regional consortia have responded to the needs of their communities to provide greater access to educational programs that would not have been feasible if sponsored by only one institution. In addition, many more partnerships exist between public institutions, between independent and public institutions, and between public institutions and area vocational technical schools which focus on a particular program. Following are a number of examples of these collaborative efforts:

A. Regional Consortia

- The Northwest Missouri Educational Consortium, a partnership between the University of Missouri, Northwest Missouri State University, Missouri Western State College, North Central Missouri College, and five area vocational technical schools

- The Southeast Missouri Educational Consortium, a partnership between Southeast Missouri State University, Lincoln University, the University of Missouri, Three Rivers Community College, and Mineral Area College, with a particular emphasis on delivering off-campus programs

- The Nevada TeleCenter, a partnership between Cottey College, Crowder College, the Nevada R-V School District, the Nevada Area Economic Development Commission, Southwest Missouri State University, the University of Missouri-Kansas City, and the University of Missouri Outreach and Extension Program

- The Southwest Missouri State University BearNet, a distance-learning delivery system serving the southwest region of the state

- The Bootheel Education Consortium builds on the strengths of Southeast Missouri State University, the University of Missouri Outreach and Extension Program, Three Rivers Community College, and four area vocational technical schools to provide educational services to residents of that region

B. Collaborative Partnerships with Area Vocational Technical Schools

- East Central College and Rolla Technical Institute are involved in a pilot project that will provide a 1-plus-1 associate degree nursing program to students in Rolla.

- St. Louis Community College, in cooperation with East Central College and Rolla Technical Institute, offers occupational therapy assistant and physical therapy assistant programs in Rolla.

- Southwest Missouri State University-West Plains offers AAS-degree programs in manufacturing machine technology and welding technology in cooperation with area vocational technical schools.

- Missouri Western State College offers a number of technical programs in cooperation with N. S. Hillyard Area Vocational Technical School.

C. Regional Technical Education Councils (RTECs)

Under the auspices of the State Plan for Postsecondary Technical Education, Regional Technical Education Councils are offering programs involving partnerships between the state's area vocational technical schools (AVTSs), community colleges, Linn State Technical

College, and other providers of technical education at the postsecondary level. These partnerships are providing geographic and programmatic access to postsecondary technical education envisioned in the State Plan for Postsecondary Technical Education by:

- leveraging funds/resources through existing service providers and funding streams, including AVTSs, comprehensive high schools, private career schools, four-year colleges and universities, apprenticeship training programs, and other two-year institutions;

- utilizing existing shops/laboratories, equipment, curriculum, faculty, alternative scheduling, and appropriate financial charge-backs; and

- building new AAS-degree programs where consideration is given to campus-based and/or out-of-district partnerships, utilizing existing core curriculum, faculty, and facilities at other providers' sites.

D. Enhanced Access to Graduate Education

- Cooperative efforts by the Kansas City, Columbia, and St. Louis campuses of the University of Missouri result in doctoral-level nursing degrees offered on all three campuses.

- The University of Missouri-Kansas City offers MS, Nursing programs in partnership with Missouri Southern State College and Missouri Western State College, in Joplin and St. Joseph, respectively.

- Southwest Missouri State University offers a MSED degree program in elementary education and an MS, Accountancy degree at Missouri Southern State College.

- Northwest Missouri State University provides several master's-level programs at Missouri Western State College.

- The University of Missouri-Columbia offers a cooperative doctoral program in educational leadership with Southwest Missouri State University, Central Missouri State University, Northwest Missouri State University, Southeast Missouri State University, and the University of Missouri-Rolla.

- The University of Missouri-Kansas City, Northwest Missouri State University, and Missouri Western State College offer a cooperative MS, Accountancy degree in St. Joseph.

- Central Missouri State University participates in a Consortium for Doctoral Studies in Technology with Bowling Green State University, Central Connecticut State University, East Carolina University, Eastern Michigan University, Indiana State University, North Carolina A&T State University, Texas Southern University, and the University of Wisconsin at Stout to provide students an opportunity to receive a Ph.D. in Technology.

E. Plus-two Baccalaureate Programs

- Central Methodist College offers plus-two baccalaureate programs in criminal justice, business administration, accounting, elementary education, nursing, and public administration and a master's degree in elementary education on the campuses of Mineral Area College and East Central College.

- Columbia College offers plus-two programs in business administration and individualized studies in partnership with Moberly Area Community College.

- Missouri Baptist College offers plus-two programs in computer and information systems, administration of justice, business administration, and nursing in partnership with Jefferson College.

- Southeast Missouri State University offers a plus-two program in industrial technology in partnership with St. Louis Community College at Florissant Valley.

- Central Missouri State University offers a plus-two program, BS in social work, in cooperation with Longview Community College.

F. Cooperative Degree Programs Offered Off-campus

- The University of Missouri-St. Louis offers baccalaureate engineering programs in cooperation with Washington University.

- St. Louis Community College offers a paramedic technology program at St. Charles County Community College.

- Several institutions are exploring the potential of offering other cooperative programs in areas such as physical therapy, social work, health sciences, and accounting.

G. MOREnet

The current effort of the public and private institutions of higher education and the CBHE regarding planning for a telecommunications-based delivery system is perhaps the most ambitious in support of this goal to identify and encourage efforts of resource sharing among the state's educational institutions.

Missouri's formation of the MOREnet consortium to provide independent and public institutions of higher education with a telecommunications network has promoted great achievements in resource sharing among the state's educational institutions. The consortium has provided technical support and network services to higher education, K-12, state government, and a variety of other supporting members. The present state appropriation request of $10.7 million for FY 1999 will bring additional support to the consortium

members through a major enhancement of bandwidth capacity. MOREnet staff are presently working with member institutions to identify solutions for Internet-based interactive video applications.

H. MOBIUS-Common Library Platform

As described under Goal 16, Missouri public and independent institutions are presently working on the formation of a consortium to operate a common library platform to allow online direct patron borrowing among member institutions. The librarians have suggested that this consortium be named MOBIUS. As envisioned, this consortium would eventually allow the sharing of more than 14 million volumes with a replacement value estimated at $1 billion.

Appendix 1

State Plan for Postsecondary Technical Education
Instructional Television Networks

STATE PLAN FOR POSTSECONDARY TECHNICAL EDUCATION

Instructional Television Networks

(Does Not Include Other Network Connections Installed Prior to S.B. 101 or Through Other Resources)

College	Transmitted From	Received By	Year Installed
Crowder College	Crowder College	Nevada --H.B. 1456 Site	FY 1997
	Crowder College	Missouri Southern State College	FY 1998
East Central College	East Central College	Rolla Technical Institute, Rolla	FY 1998
	East Central College	Four Rivers AVTS, Washington	FY 1999
	East Central College	Linn State Technical College	FY 1999
	Four Rivers AVTS, Washington	East Central College	FY 1999
Jefferson College			
Metropolitan Community Colleges	Business and Technology Ctr. (Hub)	Cass Career Center, Harrisonville	FY 1997
	Business and Technology Center	Lex LaRay Career Center, Lexington	FY 1997
	Penn Valley College (Hub)	Any Site, including below:	FY 1997
	Business and Technology Ctr. (Hub)	Any Site, including below:	FY 1998
		Cass Career Center, Harrisonville	
		Lex LaRay Career Center, Lexington	
		Northland Career Center, Platte City	
		Ft. Osage High School, Ft. Osage	
		Joe Herndon Career Center, Raytown	
		Excelsior Springs AVTS	
		Hillyard AVTS, St. Joseph	
		Longview CC	
		Maple Woods CC	
		Blue River CC, Independence	
Mineral Area College	Mineral Area College	Southeast MO State Univ., Cape Girardeau	FY 1998
	Mineral Area College	Perry County Higher Ed. Ctr., Perryville	FY 1998
	Southeast Missouri State University	Perry County Higher Ed. Ctr., Perryville	FY 1998
	Cape Girardeau Area Vocational Sch.	Mineral Area College	FY 1999
	Cape Girardeau Area Vocational Sch.	Southeast MO State Univ., Cape Girardeau	FY 1999
	Cape Girardeau Area Vocational Sch.	Perry County Higher Ed. Ctr., Perryville	FY 1999
Moberly Area Community College	Moberly Area Community Coll. (Hub)		FY 1997
	NEMONET (7 NE MO High Schools)	NEMONET	FY 1997
	Moberly Area Community College	Kirksville Area Vocational Tech School	FY 1999
	Moberly Area Community College	Mexico Advanced Tech. Center	FY 1999

College	Transmitted From	Received By	Year Installed
North Central Missouri College	North Central Missouri College (Hub)	Northwest MO State Univ., Maryville	FY 1997
	North Central Missouri College	Grand River Tech. School, Chillicothe	FY 1998
	North Central Missouri College	Northwest Tech. Sch., Maryville	FY 1999
	Grand River Tech. Sch., Chillicothe	North Central Missouri College	FY 1998
	Northwest Tech. School, Maryville	North Central Missouri College	FY 1999
St. Charles County Community College	St. Charles Co. Community College	Pike/Lincoln Technical Center, Eolia	FY 1997
	St. Charles Co. Community College	South Callaway R-II Schools, Mokane	FY 1998
	St. Charles Co. Community College	Montgomery County R-II, Montgomery County	FY 1999
St. Louis Community College — Meramec	St. Louis Community College —Meramec	Rolla Technical Institute, Rolla	Pre FY 1997
State Fair Community College	State Fair Community College (Hub)		FY 1997
	State Fair Community College	Lake AVTS, Camdenton	FY 1998
	State Fair Community College	Tri-County Tech. School, Eldon	FY 1998
	State Fair Community College	Saline County Career School, Marshall	FY 1998
	State Fair Community College	Boonslick AVTS, Boonville	FY 1999
	State Fair Community College	Nichols Career Center, Jefferson City	FY 1999
Three Rivers Community College	Three Rivers Community College (Hub) and SW Bell Tele-Com. Center		FY 1998
	Three Rivers Community College	Pemiscot Co. AVTS, Hayti	FY 1999
	Three Rivers Community College	Sikeston AVTS, Sikeston	FY 1999
	Three Rivers Community College	Kennett AVTS, Kennett	FY 1999
	Three Rivers Community College	New Madrid AVTS, New Madrid	FY 1999
Linn State Technical College	Linn State Technical College	Mexico Advanced Tech. Center	FY 1998
	Mexico Advanced Technical Center	Linn State Technical College	FY 1999
	Mexico UM Extension—TCRC	Mexico Advanced Tech. Center	FY 1999
Missouri Western State College			
Southwest Missouri State University—West Plains			

Appendix 2

1996-97 Campus-based Reviews
Academic Program Areas

1996-97
Campus-based Reviews
Academic Program Areas

Central Missouri State University

BSED/MA	Art
BFA	Commercial Art, Interior Design, Studio Art
BS	Electronics Technology (functional)
AS	Electrical Technology, Electronics Technology
BS	Fashion: Textiles and Clothing in Business Drafting Technology, Graphic Arts Technology-Management (all functional), and Photography
AS	Fashion Merchandising, Drafting Technology and Graphic Arts Technology
BS	Dietetics, General Home Economics and Hotel & Restaurant Administration
BSE	Vocational Home Economics
AS	Option: Child Development
BS/BA	Management: Management (functional major) and Human Resources Management (functional major)
BS	Agriculture-Business
BS/BA	Marketing
BS/BA	Political Science
BS/BA	Geography
BSE	Social Studies
BS/BA/MS	Psychology
BS	Psychology-Rehabilitation (functional major)
MS	School Counseling
BA/MA	Theatre
BFA	Theatre (functional major)
BSE	Speech Communication and Theatre

Harris-Stowe State College

Teacher Education	NCATE review, April 1997; preliminary report favorable
BSED	Elementary Education
BSED	Middle School/Junior High Education
BSED	Early Childhood Education
BSED	Secondary Education (Biology, English, Mathematics, and Social Studies)
BS/BA	Business Administration
BS	Urban Education
BS	Criminal Justice (plus two)

Lincoln University

BS/BSED	Chemistry
BS/AAS	Computer Science
BSED	Health and Physical Education
BMED	Music
BS/BSED	Physics
MBA	Business
MED	Education: School Administration and Supervision, School Teaching, and Counselor Education
MA	History
MA	Sociology
MA	Sociology/Criminal Justice

Missouri Southern State College

AS	Liberal Arts and Sciences: Paralegal Studies emphasis
BA	History, Sociology, Political Science
BS	Sociology
BSE	Social Studies: emphasis in History, Sociology, Political Science
BA/BSE	English
BA	Communication: Speech, Mass Communications, and International Communication
BSE	Speech Communication and Theatre

Missouri Western State College

BS/AS	Electronic Engineering Technology
BS/AS	Construction Engineering Technology (ABET reaccreditation visit, fall 1997)
BA/BSE	English, Spanish French (in cooperation with Northwest)
Minor	Journalism
Music	Ten-year accreditation from NASM
BA	Music: traditional, commercial music performance, and commercial music business/recording
BSE	Music: vocal or instrumental

Northwest Missouri State University

BS	Chemistry A.C.S.
BA/BS	Chemistry
BSED	Unified Science: Chemistry
BS	Physics
BSED	Unified Science: Physics
BA/BS	Public Relations
BA/BS	Speech Communication – minor required
BA/BS	Speech Communication – Organizational Comm.
BSED	Speech/Theatre-comprehensive and major with minor req.

BA/BS	Theatre
BA/BS	Psychology
BS	Psychology/Biology
BA/BS	Psychology/Sociology
BA/BS	Sociology
BS	Industrial Psychology
MS	Counseling Psychology
MSED	Guidance and Counseling

Southeast Missouri State University

BS/BSED	Biology
College of Education	NCATE accreditation continued, May 1997
BSED/BMED	Exceptional Child Ed., Elementary Ed., Middle School Ed., Early Childhood Ed., Art Ed., Business Ed., Math Ed., Music Ed., Vocational Home Economics, Physical Ed., Technology Ed., and Secondary Ed. (education component of all majors reviewed): English, French, German, Spanish, Biology, Chemistry, Earth Science, Physics, Social Studies, and Speech
University Studies	(48 hours of general education) one course eliminated and one course under revision
Kent Library	University committee (spring 1997) and two external reviewers (November 1997) completed review

Southwest Missouri State University

BA	Art and Design, Communication, Mass Media, English, Professional Writing, French, German, Latin, Spanish, Music, and Theatre
BFA	Art, Design, Dance, Theatre, and Musical Theatre
BSED	Art and Design, Speech and Theatre, English, French, German, Latin, Spanish, and Music
BS	Communication, Mass Media, French, German, Latin, and Spanish
BM	Music
MA	Communication, English, Writing, and Theatre
MM	Music

Truman State University

BS	Agricultural Science
BA/BS/MS	Biology
BS	Health
BA/BS	Psychology
BA/BS	Sociology/Anthropology
BA	Spanish

BSED	Secondary Education, Special Education, Early Childhood Education, Elementary Education, and Physical Education
MED	Educational Administration, Secondary Education, Counseling, Special Education, and Elementary Education
EDD	Education
BGS	General Studies